
SECTION X - GENERAL INFORMATION - EDS

Field Number	Description
8	Enter the total Medicaid payment for the claim as found under the "Claims Payment Amount" column on the Remittance Advice.
9	Enter the Remittance Advice date which is found on the top left corner of the remittance. Please do not enter the date the payment was received or posted.
10	Specifically state WHAT is to be adjusted on the claim (i.e. date of service, units of service).
11	Specifically state the reasons for the request adjustment (i.e. miscoded, overpaid, underpaid).
12	Enter the name of the person who completed the Adjustment Request Form.
13	Enter the date on which the form was submitted.

Mail the completed Adjustment Request form, claim copy and Remittance Advice to the address on the top of the form.

To reorder these forms, contact the Communications Unit by mail:

EDS
P.O. Box 2009
Frankfort, KY 40602

Be sure to specify the number of forms you desire. Allow 7 days for delivery.

The provider may also obtain copies of these forms by calling EDS at (502) 227-2525 or 1-800-756-7557.

SECTION X - GENERAL INFORMATION - EDS

F. Cash Refund Documentation

The Cash Refund Documentation form must be completed when a provider sends a refund check. The completed form and a copy of the remittance advice page showing the paid claim being refunded should accompany the check. Please mail to the following address:

EDS
P.O. Box 2009
Attn: Financial Services
Frankfort, KY 40602

If a check is sent without the Cash Refund Documentation form, your check will not be posted to a specific claim. This action would not reflect the refund being made for a particular claim, possibly leaving the provider responsible for another refund at a later date. If there are any questions concerning the form, please call the Provider Relations Unit at 1-800-756-7557 or 1-(502)-227-2525.

Field Number	Description
1	Enter check number
2	Enter amount of the check
3	Enter provider name, number and address
4	Enter name of recipient on claim being refunded
5	Enter recipient's Medicaid identification number (10 numeric digits)
6	Enter "From Date of Service" on claim being refunded
7	Enter "To Date of Service" on claim being refunded

SECTION X -- GENERAL INFORMATION -- EDS

- 8 Enter date of the paid Remittance Advice on which the claim appears
- 9 Enter 13-digit Internal Control Number (ICN) of the particular claim for which you are refunding. This is listed on the "Paid Claims" page of your remittance advice. (If several ICN's are to be applied to one check, they can be listed on the same form only if they have the same reason for refund explanation (see below).

REASON FOR REFUND

Check the appropriate reason for which the claim is being refunded. Be sure to complete all blanks. The example listed below shows how each refund is to be completed accurately. Only one reason can be completed per Cash Refund Documentation form. If multiple claims with multiple refund reasons are included in one check, complete a separate form for each refund reason.

- a. Payment from other source - Check the category and list name (attach a copy of EOB)
- | | |
|------------------|--------------------------------|
| Health Insurance | |
| Auto Insurance | |
| Medicare paid | |
| Other | Worker's Comp-ABC Construction |
- b. Billed in error
- c. Duplicate payment (attach a copy of both RA's) If RA's are paid to 2 different providers specify to which provider number the check is to be applied

1 2 3 4 5 6 7 8

SECTION X - GENERAL INFORMATION - EDS

d. Processing error or Overpayment

Explain why: Processing error-wrong date of service was
keyed

e. Paid to wrong provider

f. Money has been requested - date of letter 1-1089 (Attach a
copy of letter requesting money)

g. Other

Medicare made an adjustment. Deductible no longer due.

Contact Name:

DEPARTMENT FOR MEDICAID SERVICES

ADVANCED REGISTERED NURSE PRACTITIONER SERVICES

Services by an Advanced Registered Nurse Practitioner shall be payable if the service provided is within the scope of licensure. These services shall include, however not be limited to, services provided by the certified nurse midwife (CNM), family nurse practitioner (FNP), and pediatric nurse practitioner (PNP).

AMBULATORY SURGICAL CENTER SERVICES

Medicaid covers medically necessary services provided in free-standing ambulatory surgical centers.

BIRTHING CENTER SERVICES

Covered birthing center services include an initial prenatal visit, follow-up prenatal visits, delivery and up to two (2) follow-up postnatal visits within four (4) to six (6) weeks of the delivery date.

DENTAL SERVICES

Coverage shall be limited but includes cleanings, oral examinations, X-rays, filling, extractions, palliative treatment of oral pain, hospital and emergency calls for recipients of all ages. Other preventive dental services (i.e. root canal therapy) and Comprehensive Orthodontics are also available to individuals under age twenty-one (21).

DURABLE MEDICAL EQUIPMENT

Certain medically-necessary items of durable medical equipment, orthotic and prosthetic devices shall be covered when ordered by a physician and provided by suppliers of durable medical equipment, orthotic and prosthetics. Most items require prior authorization.

DEPARTMENT FOR MEDICAID SERVICES

EARLY PERIODIC, DIAGNOSIS, AND TREATMENT (EPSDT)

Under the EPSDT program, Medicaid-eligible children, from birth through the birth month of their twenty-first birthday may receive the following tests and procedures as appropriate for age and health history when provided by participating providers:

- Medical History
- Physical Examination
- Growth and Development Assessment
- Hearing, Dental, and Vision Screenings
- Lab tests as indicated
- Assessment or Updating of Immunizations

(EPSDT) SPECIAL SERVICES PROGRAM

The EPSDT Special Services Program considers medically necessary items and services that are not routinely covered under the state plan. These services are for children from birth through the end of their birth month of their twenty-first year. All services shall be prior authorized by the Department for Medicaid Services.

FAMILY PLANNING SERVICES

Comprehensive family planning services shall be available to all eligible Medicaid recipients of childbearing age and those minors who can be considered sexually active. These services shall be offered through participating agencies such as local county health departments and independent agencies, i.e., Planned Parenthood Centers. Services also shall be available through private physicians.

A complete physical examination, counseling, contraceptive education and educational materials, as well as the prescribing of the appropriate contraceptive method, shall be available through the Family Planning Services element of the Kentucky Medicaid Program. Follow-up visits and emergency treatments also shall be provided.

DEPARTMENT FOR MEDICAID SERVICES

HEARING SERVICES

Hearing evaluations and single hearing aids, when indicated, shall be paid for by the program for eligible recipients, to the age of twenty-one (21). Follow-up visits, as well as check-up visits, shall be covered through the hearing services element. Certain hearing aid repairs shall also be paid through the program.

HOME HEALTH SERVICES

Skilled nursing services, physical therapy, speech therapy, occupational therapy, and aide services shall be covered when necessary to help the patient remain at home. Medical social worker services shall be covered when provided as part of these services. Home Health coverage also includes disposable medical supplies. Coverage for home health services shall not be limited by age.

HOSPICE

Medicaid benefits include reimbursement for hospice care for Medicaid recipients who meet the eligibility criteria for hospice care. Hospice care provides to the terminally ill relief of pain and symptoms. Supportive services and assistance shall also be provided to the patient and family in adjustment to the patient's illness and death. A Medicaid recipient who elects to receive hospice care waives all rights to certain separately available Medicaid services which shall also be included in the hospice care scope of benefits.

DEPARTMENT FOR MEDICAID SERVICES

HOSPITAL SERVICES

INPATIENT SERVICES

Kentucky Medicaid benefits include reimbursement for admissions to acute care hospitals for the management of an acute illness, an acute phase or complications of a chronic illness, injury, impairment, necessary diagnostic procedures, maternity care, and acute psychiatric care. All non-emergency hospital admissions shall be preauthorization by a Peer Review Organization. Certain surgical procedures shall not be covered on an inpatient basis, except when a life-threatening situation exists, there is another primary purpose for admission, or the physician certifies a medically necessity requiring admission to the hospital. Elective and cosmetic procedures shall be outside the scope of program benefits unless medically necessary or indicated. Reimbursement shall be limited to a maximum of fourteen (14) days per admission except for services provided to recipients under age six (6) in hospitals designated as disproportionate share hospitals by Kentucky Medicaid and services provided to recipients under age one (1) by all acute care hospitals.

OUTPATIENT SERVICES

Benefits of the program element include diagnostic, therapeutic, surgical and radiological services as ordered by a physician, clinic visits, pharmaceuticals, emergency room services in emergency situations as determined by a physician, and services of hospital-based emergency room physicians.

There shall be no limitations on the number of hospital outpatient visits or covered services available to Medicaid recipients.

KENTUCKY COMMISSION FOR HANDICAPPED CHILDREN

The Commission provides medical, preventive and remedial services to handicapped children under age twenty-one (21). Targeted Case Management Services are also provided. Recipients of all ages who have hemophilia may also qualify.

LABORATORY SERVICES

Coverage of laboratory procedures for Kentucky Medicaid participating independent laboratories includes procedures for which the laboratory is certified by Medicare.

DEPARTMENT FOR MEDICAID SERVICES

LONG TERM CARE FACILITY SERVICES

**INTERMEDIATE CARE FACILITY SERVICES FOR THE MENTALLY RETARDED AND
DEVELOPMENTALLY DISABLED (ICF/MR/DD)**

The Kentucky Medicaid Program shall make payment to intermediate care facilities for the mentally retarded and developmentally disabled for services provided to Medicaid recipients who are mentally retarded or developmentally disabled prior to age twenty-two (22), who because of their mental and physical condition require care and services which are not provided by community resources.

NURSING FACILITY SERVICES

The Department for Medicaid Services shall make payment for services provided to Kentucky Medicaid eligible residents of nursing facilities which have been certified for participation in the Kentucky Medicaid Program. The need for admission and continued stay shall be certified by the Kentucky Medicaid Peer Review Organization (PRO). The Department shall make payment for Medicare deductible and coinsurance amounts for those Medicaid residents who are also Medicare beneficiaries.

The need for the ICF/MR/DD level of care shall be certified by the Kentucky Medicaid Peer Review Organization (PRO).

DEPARTMENT FOR MEDICAID SERVICES

MENTAL HEALTH SERVICES

COMMUNITY MENTAL HEALTH CENTER SERVICES

Community mental health-mental retardation centers serve recipients of all ages in the community setting. From the center a patient may receive treatment through:

- Outpatient Services
- Psychosocial Rehabilitation
- Emergency Services
- Inpatient Services
- Personal Care Home Visits

Eligible Medicaid recipients needing psychiatric treatment may receive services from the community mental health centers and possibly avoid hospitalization. There are fourteen (14) major centers, with satellite centers available. The Kentucky Medicaid Program also reimburses psychiatrists for psychiatric services through the physician program.

MENTAL HOSPITAL SERVICES

Reimbursement for inpatient psychiatric services shall be provided to Medicaid recipients under the age of twenty-one (21) and age sixty-five (65) or older in a psychiatric hospital. There shall be no limit on length of stay; however, the need for inpatient psychiatric hospital services shall be verified through the utilization control mechanism.

PSYCHIATRIC RESIDENTIAL TREATMENT FACILITIES

Inpatient psychiatric residential treatment facility services are limited to residents age six (6) to twenty-one (21). Program benefits are limited to eligible recipients who require inpatient psychiatric residential treatment facility services on a continuous basis as a result of a severe mental or psychiatric illness. There is no limit on length of stay; however, the need for inpatient psychiatric residential treatment facility services must be verified through the utilization control mechanism.

DEPARTMENT FOR MEDICAID SERVICES

TARGETED CASE MANAGEMENT SERVICES

ADULTS Case management services are provided to recipients eighteen (18) years of age or older with chronic mental illness who need assistance in obtaining medical, educational, social, and other support services.

CHILDREN Case management services are provided to Severely Emotionally Disturbed (SED) children who need assistance in obtaining medical, educational, social, and other services.

NURSE ANESTHETIST SERVICES

Anesthesia services performed by a participating Advanced Registered Nurse Practitioner – Nurse Anesthetist shall be covered by the Kentucky Medicaid Program.

NURSE MIDWIFE SERVICES

Medicaid coverage shall be available for services performed by and within the scope of practice of certified registered nurse midwives through the Registered Nurse Practitioner Program.

DEPARTMENT FOR MEDICAID SERVICES

PHARMACY SERVICES

Legend and non-legend drugs from the approved Medical Assistance Outpatient Drug List when required in the treatment of chronic and acute illnesses shall be covered. The Department is advised regarding the outpatient drug coverage by a formulary subcommittee composed of persons from the medical and pharmacy professions. A Drug List is available to individual pharmacists and providers upon request and routinely sent to participating pharmacies and nursing facilities. The Drug List is distributed periodically with monthly updates. Certain other drugs which may enable a patient to be treated on an outpatient basis and avoid institutionalization shall be covered for payment through the Drug Preauthorization Program.

In addition, nursing facility residents may receive other drugs which may be prior authorized as a group only for nursing facility residents.

PHYSICIAN SERVICES

Covered services include:

Office visits, medically indicated surgeries, elective sterilizations*, deliveries, chemotherapy, selected vaccines and RhoGAM, radiology services, emergency room care, anesthesiology services, hysterectomy procedures*, consultations, second opinions prior to surgery, assistant surgeon services, oral surgeon services, psychiatric services.

*Appropriate consent forms shall be completed prior to coverage of these procedures.

Non-covered services include:

Most injections, supplies, drugs (except anti-neoplastic drugs), cosmetic procedures, package obstetrical care, IUDs, diaphragms, prosthetics, various administrative services, miscellaneous studies, post mortem examinations, surgery not medically necessary or indicated.

Limited coverage:

Certain types of office exams, e.g. new patient comprehensive office visits, shall be limited to one (1) per twelve (12) month period, per patient, per physician.

DEPARTMENT FOR MEDICAID SERVICES

PODIATRY SERVICES

Selected services provided by licensed podiatrists shall be covered by the Kentucky Medicaid Program. Routine foot care shall be covered only for certain medical conditions where the care requires professional supervision.

PREVENTIVE HEALTH SERVICES

Preventive Health Services shall be provided by health department or districts which have written agreements with the Department for Health Services to provide preventive and remedial health care to Medicaid recipients.

PRIMARY CARE SERVICES

A primary care center is a comprehensive ambulatory health care facility which emphasizes preventive and maintenance health care. Covered outpatient services provided by licensed, participating primary care centers include medical services rendered by advanced registered nurse practitioners as well as physician, dental and optometric services, family planning, EPSDT, laboratory and radiology procedures, pharmacy, nutritional counseling, social services and health education. Any limitations applicable to individual program benefits shall be generally applicable when the services are provided by a primary care center.

RENAL DIALYSIS CENTER SERVICES

Free-standing renal dialysis center benefits include renal dialysis, certain supplies and home equipment.

DEPARTMENT FOR MEDICAID SERVICES

RURAL HEALTH CLINIC SERVICES

Rural health clinics are ambulatory health care facilities located in rural, medically underserved areas. The program emphasized preventive and maintenance health care for people of all ages. The clinics, though physician directed, shall also be staffed by Advanced Registered Nurse Practitioners. The concept of rural health clinics is the utilization of mid-level practitioners to provide quality health care in areas where there are few physicians. Covered services include basic diagnostic and therapeutic services, basic laboratory services, emergency services, services provided through agreement or arrangements, visiting nurse services and other ambulatory services.

TRANSPORTATION SERVICES

Medicaid shall cover transportation to and from Medicaid Program covered medical services by ambulance or other approved vehicle if the patient's condition requires special transportation. Also covered shall be preauthorized non-emergency medical transportation to physicians and other non-emergency, Medicaid-covered medical services when provided by a participating medical transportation provider. Travel to pharmacies shall not be covered.

VISION SERVICES

Examinations and certain diagnostic procedures performed by ophthalmologists and optometrists shall be covered for recipients of all ages. Professional dispensing services, lenses, frames and repairs shall be covered for eligible recipients under age twenty-one (21).

DEPARTMENT FOR MEDICAID SERVICES

****SPECIAL PROGRAMS****

ALTERNATIVE INTERMEDIATE SERVICES FOR THE MENTALLY RETARDED

The Alternative Intermediate Services for the Mentally Retarded (AIS/MR) home- and community-based services project provides coverage for an array of community based services that shall be an alternative to receiving the services in an intermediate care facility for the mentally retarded and developmentally disabled (ICF/MR/DD).

HOME AND COMMUNITY BASED WAIVER SERVICES

A home- and community-based services program provides Medicaid coverage for a broad array of home- and community-based services for elderly and disabled recipients. These services shall be available to recipients who would otherwise require the services in a nursing facility. The services became available statewide effective July 1, 1987. These services shall be arranged for and provided by home health agencies.

KenPAC

The Kentucky Patient Access and Care System, or KenPAC, is a special program which links the recipient with a primary physician or clinic for many Medicaid-covered services. Only recipients who receive assistance based on Aid to Families with Dependent Children (AFDC) or AFDC-related Medical Assistance Only shall be covered under KenPAC. The recipient shall choose the physician or clinic. It is especially important for the KenPAC recipient to present his or her Medical Assistance Identification Card each time a service is received.

SPECIAL HOME-AND COMMUNITY-BASED SERVICES MODEL WAIVER PROGRAM

The Model Waiver Services Program provides up to sixteen (16) hours of private duty nursing services and respiratory therapy services to disabled ventilator dependent Medicaid recipients who would otherwise require the level of care provided in a hospital-based skilled nursing facility. This program shall be limited to no more than fifty (50) recipients.

ELIGIBILITY INFORMATION

Programs

The Department for Social Insurance, Division of Field Services local office staff have primary responsibility for accepting and processing applications for benefit programs administered by the Cabinet for Human Resources, Department for Social Insurance. These programs, which include eligibility for Medicaid, include:

AFDC (Aid to Families with Dependent Children)

AFDC Related Medical Assistance

State Supplementation of the Aged, Blind or Disabled

Aged, Blind, or Disabled Medical Assistance

Any individual has the right to apply for Medicaid and have eligibility determined. Persons wanting to apply for Medicaid benefits shall be referred to the local Department for Social Insurance, Division of Field Services office in the county in which they live. Persons unable to visit the local office may write or telephone the local office of information about making application. Form most program, a relative or other interested party may make application for a person unable to visit the office.

In addition to the program administered by the Department for Social Insurance, persons eligible for the federally administered Supplemental Security Income (SSI) programs also receive Medicaid through the Medicaid Program. Eligibility for SSI is determined by the Social Security Administration. Persons wanting to apply for SSI should be referred to the Social Security Administration office nearest to the county in which they live. The SSI program provides benefits to individuals who meet the federal definitions of age, blindness, or disability, in addition to other eligibility requirements.

ELIGIBILITY INFORMATION

MAID Cards

Medical Assistance Identification (MAID) cards are issued monthly to recipients with ongoing eligibility. These cards show a month-to-month eligibility period.

Eligible individuals with excess income for ongoing eligibility may be eligible as a "spend down" case if incurred medical expenses exceed the excess income amount. Individuals eligible as a "spend down" case receive one (1) MAID card indicating the specific period of eligibility. After this eligibility period ends, the person may reapply for another "spend down" eligibility period.

MAID cards may show a retroactive period eligibility. Depending on the individual circumstances of eligibility, the retroactive period may include several months.

Duplicate MAID cards may be issued for individuals who original card is lost or stolen. The recipient shall report the lost or stolen card to the local Department for Social Insurance, Division of Field Services worker responsible for the case.

Verifying Eligibility

The local Department for Social Insurance, Division of Field Services staff may provide eligibility to providers requesting MAID numbers and eligibility dates for active, inactive or pending cases.

The Department for Medicaid Services, Eligibility Services Section at (502) 564-6885 may also verify eligibility for providers.

CABINET FOR HUMAN RESOURCES
DEPARTMENT FOR MEDICAID SERVICES

APPENDIX II-A

KENTUCKY MEDICAL ASSISTANCE IDENTIFICATION (M.A.I.D.) CARD

(FRONT OF CARD)

Eligibility period is the month, day and year of Kentucky Medicaid eligibility represented by this card. "From" date is first day of eligibility of this card. "To" date is the day eligibility of this card ends and is not included as an eligible day.

Department for Social Insurance case number. This is NOT the Medical Assistance Identification Number

Medical Insurance Code indicates type of insurance coverage.

Medical Assistance Identification Number (MAID) is the 10-digit number required for billing medical services.

Date card was issued

MEDICAL ASSISTANCE IDENTIFICATION CARD COMMONWEALTH OF KENTUCKY CABINET FOR HUMAN RESOURCES		Members Eligible for Medical Assistance Benefits	Medical Assistance Identification Number	SEX	DATE OF BIRTH MO-YR	REL.
ELIGIBILITY PERIOD FROM: 06 - 01 - 90 TO: 07 - 01 - 90 CASE NUMBER 037 C 000123456 CASE NAME AND ADDRESS Jane Smith 400 Block Ave. Frankfort, KY 40601 ISSUE DATE: 05-27-90 ATTENTION: SHOW THIS CARD TO VENDORS WHEN APPLYING FOR MEDICAL BENEFITS SEE OTHER SIDE FOR SIGNATURE		Smith, Jane Smith, Kim	1234567890 2345678912	2 2	0353 1284	M M

Case name and address show to whom the card is mailed. The name in this block may be that of a relative or other interested party and may not be an eligible member.

For
Kentucky Medicaid
Program
Statistical Purposes

Name of members eligible for Medical Assistance benefits. Only those persons whose names are in this block are eligible for Kentucky Medicaid Program benefits.

Date of Birth shows month and year of birth of each member. Refer to this block when providing services limited to age.

WHITE CARD

KENTUCKY MEDICAL ASSISTANCE IDENTIFICATION (M.A.I.D.) CARD

(BACK OF CARD)

Information to Providers.
Insurance Identification
codes indicate type of
insurance coverage as
shown on the front of the
card in "Ins." block.

PROVIDERS OF SERVICE		RECIPIENT OF SERVICES																		
<p>This card certifies that the person(s) listed hereon is/are eligible during the period indicated on the reverse side, for current benefits of the Kentucky Medical Assistance Program. The Medical Assistance Identification No. must be entered on each billing statement precisely as contained on this card in order for payment to be made.</p> <p>Questions regarding provider participation, type, scope and duration of benefits, billing procedures, amounts paid, or third party liability, should be directed to:</p> <p>Cabinet for Human Resources Department for Medicaid Services Frankfort, KY 40621-0001</p>		<ol style="list-style-type: none">1. This card may be used to obtain certain services from participating hospitals, drug stores, physicians, dentists, nursing homes, intermediate care facilities, independent laboratories, home health agencies, community mental health centers, and participating providers of hearing, vision, ambulance, non-emergency transportation, screening, and family planning services.2. Show this card whenever you receive medical care or have prescriptions filled, to the person who provides these services to you.3. You will receive a new card at the first of each month as long as you are eligible for benefits. For your protection, please sign on the line below, and destroy your old card. Remember that it is against the law for anyone to use this card except the persons listed on the front of this card.4. If you have questions, contact your eligibility worker at the county office.5. Recipient temporarily out of state may receive emergency Medicaid services by having the provider contact the Kentucky Cabinet for Human Resources, Department for Medicaid Services.																		
<p>Insurance Identification</p> <table border="0"><tbody><tr><td>A-Part A, Medicare Only</td><td>F-Private Medical Insurance</td></tr><tr><td>R-Part A, Medicare Premium Paid</td><td>G-Charmpus</td></tr><tr><td>B-Part B, Medicare Only</td><td>H-Health Maintenance Organization</td></tr><tr><td>C-Both Parts A & B Medicare</td><td>J-Unknown</td></tr><tr><td>S-Both Parts A & B Medicare Premium Paid</td><td>K-Other</td></tr><tr><td>D-Blue Cross Blue Shield</td><td>L-Absent Parent's Insurance</td></tr><tr><td>E-Blue Cross Blue Shield Major Medical</td><td>M-None</td></tr><tr><td></td><td>N-United Mine Workers</td></tr><tr><td></td><td>P-Black Lung</td></tr></tbody></table>		A-Part A, Medicare Only	F-Private Medical Insurance	R-Part A, Medicare Premium Paid	G-Charmpus	B-Part B, Medicare Only	H-Health Maintenance Organization	C-Both Parts A & B Medicare	J-Unknown	S-Both Parts A & B Medicare Premium Paid	K-Other	D-Blue Cross Blue Shield	L-Absent Parent's Insurance	E-Blue Cross Blue Shield Major Medical	M-None		N-United Mine Workers		P-Black Lung	<p>Signature _____</p>
A-Part A, Medicare Only	F-Private Medical Insurance																			
R-Part A, Medicare Premium Paid	G-Charmpus																			
B-Part B, Medicare Only	H-Health Maintenance Organization																			
C-Both Parts A & B Medicare	J-Unknown																			
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D-Blue Cross Blue Shield	L-Absent Parent's Insurance																			
E-Blue Cross Blue Shield Major Medical	M-None																			
	N-United Mine Workers																			
	P-Black Lung																			
<p>RECIPIENT OF SERVICES: You are hereby notified that under State Law, KRS 205.624, your right to third party payment has been assigned to the Cabinet for the amount of medical assistance paid on your behalf.</p> <p>Federal law provides for a \$10,000 fine or imprisonment for a year, or both, for anyone who willfully gives false information in applying for medical assistance, fails to report changes relating to eligibility or permits use of the card by an ineligible person.</p>																				

Notification to recipient of assignment
to the Cabinet for Human Resources of
third party payments.

Recipient's signature is not required.

II. THE REQUEST PROCEDURE

A. Initiating a Request

1. Requests for pre-authorization may be initiated by the prescribing physician or office personnel under his direct supervision. Requests from pharmacists and social workers who are working directly with the recipient's physician shall also be accepted.
2. The primary concern is that the caller have available the information necessary for staff to make an accurate determination.

B. Transmittal Methods

1. Written Requests

The drug pre-authorization may be made **IN WRITING TO:** EDS, PO BOX 2036, Frankfort, Kentucky 40602.

2. Telephone Requests

Or by **PLACING A TELEPHONE CALL** to the following toll-free number between 8:00 a.m. and 4:30 p.m. EST/EDST, on Monday through Friday (except during holidays):
 Telephone Number: 1-800-756-7558
 Out of State: (502) 227-9073

III. INFORMATION REQUIRED FOR A DETERMINATION

Persons requesting a pre-authorization of medications shall provide information, line for line from the Preauthorization Request Form. Special attention should be given to giving a specific statement, indicating the need for the requested drug as well as previous medications tried unsuccessfully.

IV. DISPOSITION OF REQUEST

- A. Nurses shall review each request and make determinations on the basis of established Program criteria. Extenuating circumstances shall be directed to the medical consultant.
- B. If the appropriate information is received and the medication meets the Program criteria, an approval shall be made. However, if the request does not meet the basic criteria or if insufficient or contradictory information is provided, the request shall be disapproved. Drug Preauthorization staff will NOT assume responsibility for calling physicians for more information.

APPENDIX XII

- C. Unusual or unique situations shall be reviewed by consultant pharmacists, physicians, and recognized University staff.
- D. When the medication is not on the DMS Drug List and is disapproved for pre-authorization, the recipient shall assume responsibility for the cost or obtain an alternative source of payment.
- E. Determinations shall be made daily Monday through Friday, except on holidays.

V. NOTIFICATION OF DISPOSITION

- A. Notification regarding the disposition (approval or disapproval) of each pre-authorization request shall be made as follows:
 - 1. **DISAPPROVALS:** When disapproved, the prescribing physician shall be notified by mail. The request and reason for disapproval shall be provided.
 - 2. **APPROVALS:** When approved, notification shall be made by phone to the selected pharmacy. The pharmacist shall provide the pre-authorization staff with the NDC number and provider number.

NOTE: Pre-authorization shall not be guaranteed for any request until reviewed and approved by pre-authorization staff members. If any change should occur, i.e. NDC#, MAID#, quantity, etc., please notify pre-authorization staff immediately to assure Program payment.

B. Period of Coverage

The effective date for Program coverage of preauthorized drugs shall begin on the date the request is postmarked or date received by phone. The pre-authorization shall remain in effect for the specified time on the "Authorization to Bill" or until the recipient becomes ineligible, whichever comes first.

CAUTION: Pre-authorization does not guarantee payment.
Recipient shall be eligible on date of service.
Verify by checking the recipient's Medicaid card.

VI. PHARMACY INFORMATION

A. Reimbursement for Preauthorized Drugs

1. Selected pharmacies shall be reimbursed at the lower of the MAC, if applicable, or Average Wholesale Price (AWP) minus ten (10) percent plus dispensing fee, or usual and customary charge to the general public.
2. Private insurance companies and Medicare, if applicable, **SHALL BE BILLED PRIOR** to submitting claims for payment.

B. Pharmacy Billing for Preauthorized Drugs

Preauthorized drugs shall be billed in the same manner as drugs on the Kentucky Medicaid Outpatient Drug List -- utilizing regular pharmacy billing statements notating the pre-authorization number in the appropriate field.

C. Payment Inquiries

If pharmacies have any questions regarding payment for submitted preauthorized drugs, EDS should be contacted at 1-800-756-7557 or at EDS, PO BOX 2009, FRANKFORT KY 40602.

VII. ADDITIONAL INFORMATION

Any questions regarding the Drug Preauthorization Procedure shall be directed to:

EDS
PO BOX 2036
FRANKFORT KY 40602

Telephone Number: 1-800-756-7558

requester: Please complete
outlined fields.
pharmacist: Please complete
other fields
marked by an
asterisk. *

Date: _____

Kentucky Medical Assistance Program
Drug Prior Authorization/Authorization To Bill

Mail to:
EDS
P.O. Box 2036
Frankfort, KY
40602

Patient's Name: _____

Pharmacy Name: _____

* **Address:** _____

* **City/St./Zip:** _____

* **Pharmacy Provider No.:** _____

Phone: () _____

MAID # _____

Physician Name: _____

Address: _____

City/St./Zip: _____

Prescribing Physician License Number: _____

Phone: () _____

PA Number	Drug Name	NDC
Strength	Quantity	Begin Date
Diagnosis	End Date	

Other Drugs Tried Without Positive Results

PA Number	Drug Name	NDC
Strength	Quantity	Begin Date
Diagnosis	End Date	

Other Drugs Tried Without Positive Results

PA Number	Drug Name	NDC
Strength	Quantity	Begin Date
Diagnosis	End Date	

Other Drugs Tried Without Positive Results

Notes

CAUTION: THE ABOVE RECIPIENT MUST BE ELIGIBLE ON THE DATE OF SERVICE. VERIFY BY CHECKING THE RECIPIENT'S MEDICAID CARD.

APPROVED _____ **OFFICE USE ONLY** _____

- _____ Drug is of type already covered on KMAP Formulary.
- _____ Drug is to be used in accordance with FDA standards and indications.
- _____ Drug is rated "possibly or less than effective" by the FDA.
- _____ Other

COMMONWEALTH OF KENTUCKY
CABINET FOR HUMAN RESOURCES
DEPARTMENT FOR MEDICAID SERVICES

Home Health Program

Agency Name _____ Vendor # _____

Agency Address _____

CERTIFICATION FOR DISPOSABLE MEDICAL SUPPLIES

Patient's Name _____ MAID # _____

Address _____ Medicare # _____

_____ Birthdate _____

Other Insurance _____

Diagnosis _____

This is to certify that the following medical supplies are essential to meet the medical needs of this recipient.

Indicate Directions for Use of the Supplies) _____

Anticipated Duration of Need: _____ 0-30 days _____ 1-6 months

_____ Lifetime _____ Indefinite

Date

Physician's Signature

Address

License #

Must be signed and dated by the physician.

APPENDIX XIV

1. Check Number	2. Check Amount	
3. Provider Name/Number/Address	4. Recipient Name	
	5. Recipient Number	
6. From Date of Service	7. To Date of Service	8. RA Date
9. Internal Control Number (If several ICNs attach RAs)		
<div style="border-bottom: 1px solid black; height: 1.2em; width: 100%;"></div>		

___ a. Payment from other source - Check the category and list name
 ___ Health Insurance (attach a copy of EOB)
 ___ Auto Insurance
 ___ Medicare paid
 ___ Other

— c. Duplicate payment (attach a copy of both RA's)
If RA's are paid to 2 different providers specify to which provider number the check is to be applied.

Explain why _____

— f. Money has been requested - date of the letter / /
(Attach a copy of letter requesting money)

Contact Name _____ Phone: _____

Case Management Protocol
Home Apnea Monitoring

Kentucky Medical Assistance Program
Department for Social Insurance
Cabinet for Human Resources

June 18, 1984

Michigan Department of Public Health
Case Management Protocol for Medical and Nursing Care
of the Home Apnea Monitored Child was used as a guide

REPORT
MEDICAL ASSISTANCE ADVISORY COUNCIL

Special Committee for
Home Apnea Monitoring

Attached is a final draft copy of the case management protocol for Home Apnea Monitoring.

The special committee to review the protocol related to apnea/bradycardia home monitoring met Tuesday, May 15, 1984, as requested by the Kentucky Medical Assistance Advisory Council at its regular meeting of March 7, 1984.

Ms. Janet Rodgers, L.P.T., with the Visiting Nurse Association of Louisville, Kentucky, served as chairperson for the committee. Also serving on the committee and in attendance at the meeting were the following people:

Doane Fischer, M.D., Department of Pediatrics, University of
Kentucky Medical Center, Lexington, Kentucky
John Roberts, M.D., Neonatologist, Department of Pediatrics,
Kosair-Childrens Hospital, Louisville, Kentucky
Patricia K. Nicol, M.D., Director, Division of Maternal and
Child Health, Department for Health Services
Joy Davis, R.N., Continuity of Care Coordinator, Kosair-
Childrens Hospital, Louisville, Kentucky
Maggie Murray, R.N., Administrator, St. Claire Medical Center
Home Health Agency, Morehead; Kentucky
Ida Lyons, Program Coordinator, Sudden Infant Death Syndrome
Program, Division of Maternal and Child Health

Additional people in attendance were:

Nileen Verbeten, Executive Director, Kentucky Home Health
Association
Fletcher Lutcavish, Assistant Director, Division of Medical
Assistance, Department for Social Insurance
Jean Farrisee, Supervisor, Alternate Care Section, Division
of Medical Assistance
Peggy Nelson, R.N., Medical Policy Analyst, Electronic Data
Systems Federal
Barbara Knox, Program Coordinator, Home Health Services, Division
of Medical Assistance

In developing this protocol, the committee considered recent data available on home apnea monitoring as well as using the expertise of the members of the committee.

The committee recommended that the KMAP follow the guidelines of this protocol in determining reimbursement and approving home apnea monitoring. The committee would welcome the use of this protocol by groups associated with and interested in home apnea monitoring.

The committee felt strongly that home monitoring must be a) preceded by a 24-48 hour period of hospitalization for evaluation and diagnostic workup, b) coordinated prior to discharge, c) followed-up with criteria established, and d) discontinued when the monitor is no longer medically necessary.

The pneumogram testing could presently be reimbursed as a hospital inpatient or outpatient service.

The committee recognized that at the present time, however, there is no KMAP coverage for the pneumogram testing and evaluation provided in the patient's home. Since this may be necessary in determining the appropriateness of discontinuing the monitor, the committee strongly recommends that coverage be made available for the pneumogram and interpretation provided in the home. Timely discontinuation of the monitor has the potential of saving the KMAP money which would otherwise be billed as rental for a prolonged length of unnecessary service.

/pp

The protocol is the product of a Special Committee convened in May 1984 at the request of the Kentucky Medical Assistance Advisory Council to provide advice and guidelines on the current state of knowledge and practice in the utilization of apnea monitors. The Committee was organized because the Home Health Technical Advisory Committee recognized the need to develop appropriate standards and policies regarding the utilization of Apnea/bradycardia monitors in order to assure quality and safe care to Medicaid recipients.

Case Management Protocol
Home Apnea Monitoring
Kentucky Medical Assistance Program
Department for Social Insurance
Cabinet for Human Resources

Introduction

THE PURPOSE OF THIS PROTOCOL is to communicate the optimal components of service for children suspected of having apnea. The protocol will be utilized by the Kentucky Medical Assistance Program (KMAP) in approving requests for financial reimbursement for apnea bradycardia monitors.

Protocol

I. MEDICAL CRITERIA FOR APNEA DIAGNOSTIC WORK-UP AND PLACEMENT OF HOME MONITORS

- A. Definition of Apnea: The American Academy of Pediatrics Task Force on Prolonged Apnea defines prolonged apnea as "cessation of breathing for 20 seconds or longer, or as a briefer episode associated with bradycardia, cyanosis or pallor."
- B. Etiology: Etiology includes but is not limited to seizure disorders, severe anemia, gastro-esophageal reflux, hypoglycemia, other metabolic disorders and impaired regulation of breathing.
- C. Population at Risk
 - *Child with observed apneic episode (without demonstrable cause)
 - *Child with history of apnea, cyanosis, birth asphyxia or hypoxia of any cause
 - *Siblings of SIDS infant
 - *Premature infant less than 1500 grams
 - *Infant of drug dependent mother
 - *Child with tracheostomy
 - *Selected children with certain cardiac arrhythmias
 - *Children with specific seizure disorders
- D. Elements of Diagnostic Work-Up¹
 1. REQUIRED elements of study

- *History and physical examination
- *Laboratory studies
 - CBC
 - Urinalysis
 - Chem 6 - (Sodium, Potassium, CO₂, BUN, Glucose, Chloride)
 - Calcium
 - Magnesium
 - Creatinine
- *Cardio-respiratory monitoring (inpatient) for 24-48 hour with close professional observation of child
- *Chest x-ray
- *EKG

¹If the capability for proper testing/analysis is unavailable, we recommend appropriate referral or consultation

2. Recommended further studies as indicated

- Pneumogram
- EEG
- Blood/septic work-up
- Upper GI
- Spinal tap/lumbar puncture
- CT Scan

E. Criteria for Monitor Placement

1. Presence of one or more

- Documented episode(s) of apnea with no treatable cause or an inadequate response to treatment
- Documented episode of apnea with bradycardia, cyanosis or pallor
- History of apnea described by parent or caretaker based on physician's best informed judgement and evaluation of testing
- Abnormal ventilatory pattern on pneumogram
- SIDS sibling
- Multiple-birth SIDS survivor(s)
- Potential for airway obstruction

2. Monitor order and need for monitor must be included as part of physician's order/information on Home Health Plan of Treatment recertification

F. Criteria for Continuation

- Child should be seen at least every 2 months by the primary care physician or apnea consultant after monitor placement for medical evaluation and recertification for continuing need of monitor or discontinuation
- The physician ordering and recertifying the need for the monitor must not be affiliated with the company supplying the monitor

G. Criteria for Discontinuation of the Monitor

- No clinical apnea for 2 months unless sibling of SIDS. For sibling of SIDS should leave monitor for 2 months longer than number of months of life of SIDS
- Parent preparation and readiness
- Clinical judgement

II. HOSPITAL DISCHARGE PLANNING

The following items are the responsibility of the hospital staff under the direction of the physician ordering the monitor. All activities must be completed and documented in the child's record prior to discharge.

A. Assessment

- Parent(s)² ability, acceptance and understanding of the purposes, responsibilities, risks and benefits of home monitoring
- Appropriateness of home environment
- Family support systems and coping abilities
- Financial ability to support home care costs, including utilities

B. Equipment (supplied to parents prior to discharge)

- Apnea and bradycardia monitor³ which has been used by the infant for a minimum of 24 hours prior to hospital discharge
- Two sets of connecting equipment appropriate for the monitor (leads, belts, tabs, etc.)
- Power failure alarm (if not incorporated into monitor)
- Observation and incident record sheets

C. Teaching (includes instruction, discussion, demonstration of and the return demonstration by parents)

- Placement of equipment
- Attachment of monitor to child
- Operation of monitor, including setting alarm sensitivity
- Reading and interpretation of alarm
- Response sequence to monitor alarm
- Infant resuscitation techniques (use of mouth-to-mouth and CPR)
- Recording of necessary information on forms
- Emergency support plan, including names and phone numbers for:
 - Hospital emergency room
 - Key hospital staff
 - Physicians
 - Emergency squad or ambulance
 - Power company
 - Medical equipment company for monitor malfunction or failure
 - Home health agency nurse
 - Child care person
 - Transportation to hospital
- Safety measures
 - Proper grounding
 - Access to telephone
 - Available flashlight
 - Noise control
 - Close supervision of young siblings
 - Instruction to older siblings
 - Secure placement of monitor

²Parent(s) refers throughout to parent or caretaker.

³This excludes the use of pad type monitors.

- D. Written Instructions (to be sent home with parents and to be attached to all home health agency referrals)

*All items in II-C (Teaching and Instruction) above

E. Physician referral

- *The physician must contact the Home Health Agency and establish a Home Health Plan of Treatment to order the monitor and nursing visit(s).⁴ The Home Health Agency should work in close collaboration with the physician and hospital personnel in contacting the medical equipment company and making arrangements for the equipment.⁵
- *Primary care physician (unless already the ordering physician).

F. Community Referrals

- *Financial aid
- *Social services
- *Parent support groups
- *Mental health

III. COMMUNITY SERVICES

A. Responsibilities of Home Health Agency Nurse

1. Collaborate with hospital staff to assure continuity of coordinated care between hospital and home
2. Contact with child and family within 24 hours of hospital discharge
3. Assess, review and reinforce all items in II-A through D page 5-7
4. Review physical care needs of child with parent(s)
5. Assist in identifying additional resources (especially for relief) as needed
6. Review and support the child's normal growth and development with special emphasis on incorporating the child into the normal family structure
7. Review plans for follow-up care and coordinate community referrals

⁴ Every child discharged with a monitor will be referred to a home health agency prior to discharge. Contact should occur between the home health agency and the hospital discharge planner to discuss specific patient care needs.

⁵ Equipment should be delivered and appropriate aspects of the emergency plan reviewed with the parent(s) prior to discharge.

8. Review and report pertinent findings to the primary care physician or apnea physician consultant at a minimum of every 2 months, i.e. number of spells of apnea; how long lasted; description of spell; condition of patient during spell; was CPR/gentle shaking required, how long since last spell, etc.

9. Prepare family for eventual discontinuation of monitor

10. Offer emotional support to family and be cognizant of typical parental reactions

B. Responsibilities of Medical Equipment Suppliers

1. Collaborate with hospital staff and home health agency to assure continuity of services between hospital and home

2. Provide appropriate equipment and related supplies

3. Machine operation

a. Review machine operation with parent(s) and supply written instructions

b. Evaluate equipment in home within first week, i.e. written report to physician and home health nurse

4. Maintain equipment

5. Review appropriate aspects of emergency plan with parent(s)

6. 24 hour answering service and respond to calls regarding monitor malfunction or failure in timely manner

C. Responsibilities of Primary Care Physicians/Apnea Physician Consultants

1. Initiate necessary referrals

2. Primary care physician and apnea physician consultant (if applicable) should coordinate patient's care.

3. Provide ongoing education to parents regarding the pathology underlying the child's apnea and regarding eventual discontinuation of monitor

4. Provide emotional support

5. Child's progress should be evaluated by consultant or primary care physician at a minimum of every 2 months after placement of monitor

6. Review the history of apnea and daily log of the child's status

7. Review laboratory results

8. Evaluate blood levels of prescribed medication (i.e. Theophylline, Phenobarbital, etc.)
9. Discontinuation of monitor with appropriate explanation to family

Case Management Protocol
for Care of the
Home Ventilation Patient

Kentucky Medical Assistance Program
Department for Social Insurance
Cabinet for Human Resources

The protocol is the product of a Special Committee convened at the request of the Kentucky Medical Assistance Advisory Council to provide advice and guidelines on the current state of knowledge and practice in the care of the home ventilation patient. The Committee was organized because the Home Health Technical Advisory Committee recognized the need to develop appropriate standards and policies regarding the care of the home ventilation patient in order to assure quality and safe care to Medicaid recipients.

Case Management Protocol
for Care of the
Home Ventilation Patient
Kentucky Medical Assistance Program
Department for Social Insurance
Cabinet for Human Resources

Introduction

THE PURPOSE OF THIS PROTOCOL is to communicate the optimal components of managing the ventilator dependent patient at home. The protocol will be utilized by the Kentucky Medical Assistance Program (KMAP) in approving requests for financial reimbursement for mechanical ventilators.

The placement and care of the ventilator dependent patient involves a partnership among the physician, hospital, home health agency and equipment supplier. Because of the importance of ongoing patient care in the home setting and necessity of reliable response systems, the referring hospital/physician shall consult with the home health agency prior to any selection of equipment supplier.

I. Eligibility Criteria

The following criteria must be met for a patient to be considered for a home ventilation program. If all criteria are not met, a home ventilator shall not be installed.

A. Medical

Candidates to be considered for a home ventilation program shall be medically stable, possess a permanent tracheostomy (for positive pressure ventilation), and be generally included in, but not limited to, the following categories:

1. Injuries of the spinal cord
2. Irreversible neuromuscular disease
3. Sleep disorders
4. Chronic pulmonary disorders
5. Other neurological disorders

A person trained in the care of patients who require mechanical ventilation, (e.g., pulmonologist, neonatologist, intensivist, cardio thoracic surgeon, internist) should review the need for at home mechanical ventilation before institution.

B. Social - Environmental

1. The patient's family/primary caregiver must be capable of comprehension and performance of duties and responsibilities relative to ventilatory dependent patient care.
2. There shall be documentation of caregiver's competence in performance of patient care.
3. There shall be documentation of acceptable dwelling and physical facilities.

C. Community Resources

1. Emergency Medical Service.
2. Local physician to accept patient when applicable.
3. Home Health Agency (with staff trained in care of ventilator dependent patients).
4. Medical equipment supplier (with staff trained in care of ventilator dependent patients).

II. Home Ventilator Plan

The following are activities necessary for adequate ventilator dependent care. When specific behavioral objectives are stated, they must be met during the course of orientation, instruction, and treatment (unless indicated as optional by an *). The responsibilities for performance of duties to the left according to the following:

- HO - hospital from which patient will be discharged to home;
- HH - home health agency operating within county of patient's residence;
- D - durable medical equipment supplier.

In case of dual responsibilities, the agency listed first shall assume responsibility for implementation.

A. Assessment

- HO/HH 1. Primary caregivers shall possess the ability to accept and understand the purposes, responsibilities, risks, and benefits of home ventilator therapy.
- D/HH 2. Documented assessment of an adequate home environment shall be made prior to discharge to evaluate the following:
 - a. Electrical capability
 - b. Size of doorways and rooms
 - c. Accessibility (steps, ramps, etc.)
 - d. Bathroom location
 - e. Availability of telephone
 - f. Adequate heating and cooling
 - g. Adequate refuse disposal
 - h. Acceptable area for supplies, equipment, and exercise
- HO/HH 3. Adequate family support systems and coping mechanisms shall be evaluated.
- HO/HH 4. There shall be adequate financial resources to support medical, home care, nutritional, utilities, and continued family living costs.

B. Implementation

- HO 1. The physician shall write the orders for home ventilation.

- HO 2. The caregiver shall be instructed in the following:
- HO a. Anatomy and Physiology
- HO/HH b. Nutrition and Hydration
- HO/HH c. Personal Care
- HO/HH d. Tracheostomy Care
- site care
 - dressing/ties/changing
 - tube cleaning/changing/insertion
 - emergency care
- HO/D e. Suction Procedures
- hyperinflation/hyperoxygenation with manual ventilator (e.g., ambu bag)
 - proper tracheal and nasopharyngeal suction techniques (to include sterile technique)
 - installation of bland or medicated solution for secretion removal
- HO f. Chest Physiotherapy
- percussion/postural drainage
 - breathing retraining
- HO g. Physical Therapy
- musculoskeletal exercise program
 - aerobic retraining program
- D/HH/HO h. Ventilator Operation
- circuit change
 - equipment cleaning/disinfection
 - checking and changing parameters
 - checking alarm system
 - safety precautions
 - checking and charging electrical back-up
 - trouble shooting
- HO/D i. Tracheostomy Collar
- humidifier/nebulizer operation
 - cleaning/disinfection
 - proper FIO₂ setting
 - over hydration precautions
 - tubing changes
 - maintenance of sterile/clean system

- HO j. Cardiopulmonary Resuscitation
- HO/D k. Safety Precautions
- adequate grounding
 - response to alarms
 - response to power failure
 - response to machine failure
 - recognition of early signs of respiratory distress
 - response to airway occlusion
 - prevention of barotrauma
 - prevention of infection
 - noise control
 - recognition of gastric distention
 - supervision of small children

HO/HH 1. Medications

- name
- dosages
- frequencies
- actions
- common side effects and rationale for notification of M.C. or home health agency
- contraindications

Note: All instructions given to caregiver and patient shall be accompanied by a written procedure statement, and attached to home health referral.

C. Specific Duties

In addition to the above, those agencies and individuals shall have the following specific responsibilities:

1. Home Health Agency

- a. Collaborate with hospital staff and equipment suppliers to assure continuity of coordinated care between hospital and home.
- b. Organize one site visit with patient and family/ caregiver prior to discharge.
- c. Be physically present upon arrival at home.
- d. Assess, review, and reinforce all items included in II - A and B after discharge.
- e. Assess and assist in identifying additional resources (especially respite) as needed.

- f. Encourage incorporation of patient into routine family structure and lifestyle as much as possible.
- g. Review follow-up plans and coordinate community referrals.
- h. Assist caregivers/family in arranging six month reevaluation by discharging physician or his designee.
- i. Have in place twenty-four hour call system.
- j. Report all pertinent findings to primary care physician as needed or every two months.
- k. Assist with arranging transportation as needed and medically necessary.
- l. Make changes in ventilator parameters as ordered, with immediate notification to the medical equipment suppliers.
- m. Provide other supplies not available from supplier or included in ventilator units.

2. Medical Equipment Supplier

- a. Supply a ventilator available for patient to use 7 to 14 days prior to discharge.
- b. Maintain accurate documentation of ventilator parameters.
- c. Make changes in ventilator parameters as ordered with immediate verbal and written notification to the home health agency.
- d. Provide supplies necessary as ventilator adjuncts to assure complete ventilator operation.
- e. Provide twenty-four hour call with one hour response for equipment repair or replacement.
- f. Maintain available services of a respiratory therapist or respiratory therapy technician as identified by the National Board of Respiratory Care.
- g. Provide twenty-four hour electrical source.
- h. Provide manual ventilator source (with or without supplemental oxygen as ordered).
- i. Perform routine maintenance as specified by manufacturer or company protocol and assure proper equipment function.

- j. Provide functionally safe alarm systems.
 - k. Provide personnel and equipment for transport of patient from hospital.
 - l. Visit patient a minimum of every week during the first month and monthly after the initial month.
 - m. Review cleaning/sterilization techniques with caregiver.
 - n. Provide home health patient with written instructions/trouble shooting guide.
 - o. Reinforce knowledge of generator operations with caregiver and provide written guide for patient.
 - p. Provide written notification of presence of ventilator patient to area electric, fire and telephone services.
3. Physician
- a. The discharging physician shall write all ventilator orders and discharge orders. These shall be communicated to the primary care (community) physician where applicable.
 - b. The discharging physician will provide period six month case review (or assign to another physician, e.g., primary care physician).
 - c. The primary care physician may assume total patient care which may include or exclude six month care review, at the discretion of the discharging physician.

Appendix XVII

Case Management Protocol
In-Home IV Therapy
Kentucky Medical Assistance Program
Department for Social Insurance
Division of Medical Assistance

Case Management Protocol
In-Home IV Therapy
Kentucky Medical Assistance Program
Department for Social Insurance
Cabinet for Human Resources

Introduction

THE PURPOSE OF THIS PROTOCOL is to communicate the optimal components of managing the patient receiving IV Therapy at home. The placement and care of the patient involves a partnership among the physician, hospital, home health agency, pharmacist and supplier. Because of the importance of ongoing patient care in the home setting and necessity of reliable response systems, the referring hospital/physician shall consult with the home health agency prior to any selection of supplier.

Case Management Protocol
In-Home IV Therapy
Kentucky Medical Assistance Program
Department for Social Insurance
Cabinet for Human Resources

Introduction

The purpose of this protocol is to identify the basic components of intravenous therapy and to establish criteria and guidelines for safe institution, maintenance and termination of IV Therapy in the home setting.

I. DEFINITION

Intravenous therapy is the administration of fluids, medication and/or nutritional products via the venous route and all those processes involved with its institution, maintenance and termination.

SECTION A

II. IV FLUID REPLACEMENT IN THE HOME

A. Medical Criteria

1. Inability of patient to take adequate nutritional products orally.
2. Physical signs of dehydration.
3. Baseline laboratory data with appropriate periodic evaluation and laboratory screening. Baseline laboratory data should include: WBC and differential, Hgb and/or Hct, BUN, Glucose and electrolytes. Other tests are to be done as indicated by the patients condition or diagnosis.
4. Safety of the IV fluids for home administration.
5. Patient in clinically stable condition; exception for terminal illness with voluntary consent of patient and/or caregiver.
6. Approved by a physician and seen by his/her agent (i.e. home health nurse) in the preceding 24 hours. Arrangements made for physician follow-up during therapy and after its termination.

B. Hospital Discharge Planning

The following items are the responsibility of the hospital staff under the direction of the physician ordering the home IV Therapy. All activities must be completed and documented in the patient's record prior to discharge.

1. Assessment

- a. Patient's and/or primary caregiver's willingness and mental and physical capability in administering IV therapy.
- b. Patient and/or primary caregiver acceptance and understanding of the purposes, responsibilities, risks, and benefits of home IV Therapy.
- c. Mutual consent of caregiver and/or patient and physician. Consent form for home IV Therapy signed by responsible person prior to discharge with signed copy of form to home health agency. For non-hospitalized patient, consent form signed in the home by patient or other legally responsible person prior to institution of IV Therapy. A sample of a consent form has been included. (Appendix I)
- d. Availability of medical supply delivery system.
- e. Physical facilities of the patient's residence should be appropriately equipped and conducive to the safe administration of intravenous therapy.
- f. Accessibility of the home to health professionals. (Consideration of travel time as opposed to actual mileage.)
- g. Availability of nursing personnel on a 24-hour basis.
- h. Age of patient. (Children under 5 years are not deemed as appropriate candidates for fluid replacement home IV Therapy, however, exceptions can be considered in specific cases. The opinions of all members of the health team, including the family must be taken into consideration before a final decision is made.)
- i. The illness or condition should be amenable to care at home including reasonable expectation that the patient's medical, nursing and social needs can be met adequately in the home including a plan to meet medical emergencies.

2. Teaching

Teaching (includes instruction, discussion, demonstration of and return demonstration by patient and/or primary caregiver) until person taught is competent in procedures to be followed at home.

Recommendations:

- Standards for teaching should be those of the National Intravenous Therapy Association (NITA). (Appendix II)
- Nursing personnel teaching IV Therapy should have specialized IV skills.
- Teaching should be done using simplified terms at the patient's and/or caregiver's level of understanding.
- a. Specifics of Teaching:
 - (1) aseptic technique
 - (2) proper administration of IV fluids; i.e., priming IV tubing, etc
 - (3) signs/symptoms of complications and their specific interventions
 - (a) phlebitis
 - (b) infiltration
 - (c) leakage of fluid
 - (d) separation of line
 - (e) air in line
 - (f) contamination
 - (g) fluid overload
 - (h) occlusion
 - (4) procedure for 24 hour problem reporting
 - (5) type, amount and rate of fluids
 - (6) delivery system (pump, etc.)
 - (7) maintenance of patent IV line
 - (8) appropriate storage and rotation of supplies
 - (9) appropriate area for IV fluid administration
 - (10) safe discarding of disposable equipment

(11) addition of medications if ordered (i.e. vitamins, KCl)

(12) interpretation of labels on IV fluid containers to include expiration dates

(13) assessment of IV fluid for contamination

b. Written instructions (to be sent home with patient/caregiver and to be attached to all home health agency referrals).

3. Physician Referral

a. The physician is to work in close collaboration with hospital personnel in making the necessary arrangements for discharge of the patient.

b. The physician or his representative are to contact the Home Health Agency (HHA) and establish a Home Health Plan of Treatment for the IV Therapy and nursing visit(s).

c. Notification of primary care physician if other than the physician ordering the IV therapy.

d. Specifics:

(1) I.V. fluids are to be ordered according to type, amount, rate, additives, duration, route and method of delivery.

C. Community Services

1. Responsibilities of Home Health Agency Nurse^{1/}

a. Collaborate with hospital staff to assure continuity of coordinated care between hospital and home to include communication with physician medical suppliers, pharmacists and other health professionals as indicated.

b. Contact with patient/caregiver same day as discharge from hospital.

c. Assess patient's condition.

d. Assess home environment and if found to be unsuitable, contact the physician.

e. Assess, review and reinforce all items in 2a above.

^{1/}Refer to Appendix III for opinion statement of the Kentucky Board of Nursing (July 1984) regarding L.P.N. practice in IV Therapy.

- f. Return demonstration by responsible person of procedures taught in the hospital. (Refer to NITA standards in Appendix II.)
- g. Assist in identifying additional resources (especially for relief) as needed.
- h. Review plans for follow-up care and coordinate community referrals as necessary.
- i. Assure consent form is signed.
- j. Assure that all supplies are in the home to render IV Therapy.
- k. Notify the patient/caregiver of emergency numbers; home health agency, physician, medical supplier and availability of 24-hour services.
- l. Visit patient on a regular and appropriate basis when on continuous IV fluid therapy as deemed necessary by the physician and/or patient's condition.
- m. Maintain regular contact with physician and other disciplines as indicated.
- n. Adhere to the following standards specific to nursing activities for IV Therapy:
 - (1) Check IV fluids for contamination and expiration dates
 - (2) Use of povidone/iodine or other approved topical anti-microbial prep for IV site (for iodine allergies use 70% alcohol prep)
 - (3) Change IV site every 72 hours^{2/}
 - (4) Apply sterile occlusive dressing to IV site
 - (5) Remove plastic cannulas at termination of IV Therapy with proper inspection
 - (6) Assure that a volume limiting device is attached to IV fluid containers for pediatric patients and others where fluid overload is a potential problem

^{2/} Venous access sometimes dictates frequency of site changes. Above guideline is to be used as a norm.

- o. Use of Hepain lock recommended for peripheral IV therapy.
- p. Refer to NITA standards, specifically recommendations of practice listed under heading #32, Home IV Therapy Programs. (Appendix II)

SECTION B

III. IV ANTIBIOTIC THERAPY IN THE HOME

A. Medical Criteria

1. Documentation of infection including any available culture and sensitivity reports.
2. Infectious process that can best be treated with IV antibiotics, i.e., antibiotic not available in oral form or therapeutic objectives not achieved via oral route.
3. Initiation of IV antibiotic in hospital or other medical facility.
4. Safety of IV antibiotic for home administration.
5. Patients seen by physician in preceding 48 hours before discharge.
6. Patient in clinically stable condition; exception for terminal illness with voluntary consent of patient and/or caregiver.
7. Dependable IV route.
8. Hospital Discharge Planning

The following items are the responsibility of the hospital staff under the direction of the physician ordering the home IV Therapy. All activities must be completed and documented in the patient's record prior to discharge.

1. Assessment
 - a. Patient's and/or primary caregiver's willingness and mental and physical capability in administering IV therapy.
 - b. Patient's and/or primary caregiver's acceptance and understanding of the purposes, responsibilities, risks, and benefits of home IV Antibiotic Therapy.
 - c. Mutual consent of caregiver and/or patient and physician. Consent form for home IV Therapy signed by patient or other legally responsible person prior to discharge with signed copy of form to home health agency. A sample of a consent form has been included. (Appendix I)
 - d. Availability of medical supply delivery system.

- e. Physical facilities of the patient's residence should be appropriately equipped and conducive to the safe administration of intravenous therapy.
- f. Accessibility of the home to health professionals. (Consideration of travel time as opposed to actual mileage.)
- g. Availability of nursing personnel on a 24-hour basis.
- h. The illness or condition should be amenable to care at home including reasonable expectation that the patient's medical, nursing and social needs can be met adequately in the home including a plan to meet medical emergencies.

2. Teaching

Teaching (includes instruction, discussion, demonstration of IV techniques and return demonstration by patient and/or primary caregiver) until person taught is competent in procedures to be followed at home.

Recommendations:

- Standards for teaching should be those of the National Intravenous Therapy Association (NITA). (Appendix II)
- Nursing personnel teaching IV Antibiotic Therapy should have specialized IV skills. Nurse to be knowledgeable about the specific IV antibiotic ordered (may refer to pharmacist, manufacturer's instructions, etc.).
- Teaching should be done using simplified terms at the patient and/or caregivers level of understanding.

a. Specifics of Teaching:

- (1) aseptic technique
- (2) proper administration of IV antibiotics
 - (a) appropriate "thaw time" for premixed refrigerated or frozen antibiotics
 - (b) antibiotics should not be given IV push. (Refers to rate)
- (3) signs/symptoms of complications and their specific interventions
 - (a) phlebitis
 - (b) cellulitis
 - (c) infiltration

- (d) break and leaks in administration set or catheters
 - (e) separation of line
 - (f) air in line
 - (g) air embolism
 - (h) contamination
 - (i) bleeding
 - (j) allergic reaction
 - (k) occlusion
- (4) procedure for 24 hour problem reporting
 - (5) type, amount and rate of IV antibiotics (rate of administration important, especially with aminoglycosides)
 - (6) delivery system (volutrol if indicated, etc.)
 - (7) maintenance of patent IV line
 - (8) checking of bag for pin hole leaks
 - (9) appropriate storage and rotation of supplies (refrigeration or freezing will be necessary for premixed antibiotics)
 - (10) appropriate area for IV fluids administration
 - (11) safe discarding of disposable equipment
 - (12) interpretation of labels on IV antibiotics to include expiration dates
 - (13) assessment of IV fluid for contamination
 - (14) preparation of IV antibiotic if not delivered premixed
 - (15) appropriate intervals for administration of IV antibiotics if more than one is ordered
 - (16) side effects for specific antibiotic or class of antibiotics; i.e., aminoglycosides (ototoxicity).
- b. Written instructions (to be sent home with patient/ caregiver and to be attached to all home health agency referrals).

3. Physician Responsibilities

- a. The physician is to work in close collaboration with the pharmacist and hospital personnel in making the necessary arrangements for discharge of the patient.

- b. The physician or his representative is to contact the Home Health Agency (HHA) and establish a Home Health Plan of Treatment for antibiotic IV Therapy and nursing visit(s).
- c. Notification of primary care physician if other than the physician ordering the IV therapy.
- d. Specifics:
 - (1) I.V. antibiotics are to be ordered according to type, amount, rate, additives, duration, route and method of delivery
 - (2) Appropriate laboratory studies for:
 - (a) toxicity (i.e., weekly BUN, creatinine, urinalysis; hearing and vestibular testing on a regular basis for aminoglycoside therapy)
 - (b) therapeutic efficacy (peak and trough serum levels)
 - (3) Arrangements made for prompt notification of physician regarding lab values
 - (4) Periodic personal followup/clinical assessment by physician
- 4. Pharmacist Responsibilities
 - a. Communicate with the physician, hospital personnel and HHA to coordinate resources necessary for discharge.
 - b. Verify/evaluate physician's orders.
 - c. Evaluate for reimbursement sources.
 - d. Assist nurse and/or patient in teaching process as needed.
 - e. Assure proper preparation of IV antibiotics.
 - f. Prepare appropriate labels for parenteral container to include:
 - (1) patient's name
 - (2) physician's name
 - (3) date
 - (4) drug(s)

- (5) dosages (strength)
- (6) expiration date
- (7) diluent
- (8) administration rate
- (9) require a Federal labeling
- (10) other precautionary statement(s) if indicated
- g. Act as resource person for HHA nurse in regards to antibiotic ordered.
 - (1) storage of antibiotic
 - (2) stability
 - (3) compatibility
 - (4) reconstitution of antibiotic if not premixed
 - (5) rate
 - (6) necessary supplies
 - (7) other information specific to antibiotic ordered

D. Community Services

- 1. Responsibilities of Home Health Agency Nurse^{1/}
 - a. Collaborate with hospital staff to assure continuity of coordinated care between hospital and home to include communication with physician, medical supplier, pharmacist and other health professionals as indicated.
 - b. Contact with patient/caregiver same day as discharge from hospital.
 - c. Assess patient's condition.
 - d. Assess home environment and if found to be unsuitable, contact the physician.
 - e. Assess, review and reinforce all items under Hospital Discharge Planning #2 (Teaching).

^{1/}Refer to Appendix III for opinion statement of the Kentucky Board of Nursing (July 1984) regarding L.P.N. practice in IV Therapy.

- f. Return demonstration by responsible person of procedures taught in the hospital. (Refer to NITA standards in Appendix II.)
- g. Assist in identifying additional resources (especially for relief) as needed.
- h. Review plans for follow-up care and coordinate community referrals as necessary.
- i. Assure consent form is signed.
- j. Assure that all supplies are in the home to render IV Therapy.
- k. Notify the patient/caregiver of emergency numbers; home health agency, physician, medical supplier, and availability of 24-hour services.
- l. Visit patient on a regular and appropriate basis when on antibiotic therapy as deemed necessary by the physician and/or patient's condition.
- m. Assess for appropriate laboratory monitoring.
- n. Maintain regular contact with physician and other disciplines as indicated. Physician to receive prompt notification of lab results.
- o. Adhere to the following standards specific to nursing activities for Antibiotic IV Therapy:
 - (1) Check IV antibiotic containers for contamination and proper labeling
 - (2) Use of povidone/iodine or other approved topical anti-microbial prep for IV site prep (for iodine allergies use 70% alcohol prep)
 - (3) Use Heparin lock
 - (4) Change IV site every 72 hours^{2/}
 - (5) Apply sterile occlusive dressing to IV site
 - (6) Remove plastic cannulas at termination of IV Therapy with proper inspection
- p. Refer to NITA standards, specifically recommendations of practice listed under heading #32, Home IV Therapy Programs. (Appendix II)

^{2/} Venous access sometimes dictates frequency of site changes. Above guideline is to be used as a norm.

SECTION C

IV. TOTAL PARENTERAL NUTRITION (TPN) IN THE HOME

A. Medical Criteria

1. Inability of patient to take nourishment by any other route.
2. Medical condition warrants ongoing need for TPN according to physician's assessment.
3. Initiation of TPN in hospital or other medical facility.
4. TPN formula has been consistent for a 3 to 4 day period.
5. Patient stabilized on TPN regimen which will be given in the home (continuous or cyclic).
6. Monitoring of lab values on regular basis (at least weekly) with stabilization of values prior to discharge.
7. Patients seen by physician in preceding 24 hours before discharge.
8. Patient in clinically stable condition; exception for terminal illness with voluntary consent of patient and/or caregiver.
9. Intact central line.

B. Hospital Discharge Planning

The following items are the responsibility of the hospital staff under the direction of the physician ordering the home TPN Therapy. All activities must be completed and documented in the patient's record prior to discharge.

1. Assessment

- a. Patient's and/or primary caregiver's willingness and mental and physical capability in administering TPN therapy.
- b. Patient's and/or primary caregiver's acceptance and understanding of the purposes, responsibilities, risks, and benefits of home TPN Therapy.
- c. Mutual consent of caregiver and/or patient and physician. Consent form for home TPN Therapy signed by patient or other legally responsible person prior to discharge with signed copy of form to home health agency. A sample of a consent form has been included. (Appendix I)

- d. Availability of medical supply delivery system.
- e. Physical facilities of the patient's residence should be appropriately equipped and conducive to the safe administration of TPN therapy.
- f. Accessibility of the home to health professionals. (Consideration of travel time as opposed to actual mileage.)
- g. Availability of nursing and pharmacy personnel on a 24-hour basis.
- h. The illness or condition should be amenable to care at home including reasonable expectation that the patient's medical, nursing and social needs can be met adequately in the home including a plan to meet medical emergencies.

2. Teaching

Teaching (includes instruction, discussion, demonstration of TPN techniques and return demonstration by patient and/or primary caregiver) until person taught is competent in procedures to be followed at home.

Recommendations:

- Standards for teaching should be those of the National Intravenous Therapy Association (NITA). (Appendix II)
- Nursing personnel teaching TPN Therapy should have specialized IV skills and be knowledgeable in the specifics of TPN Therapy (may refer to pharmacist, manufacturer's instructions, etc.).
- Teaching should be done using simplified terms at the patient and/or caregivers level of understanding.

a. Specifics of Teaching:

(1) aseptic technique

(2) proper administration of TPN

- (a) infusion controller device necessary (recommend simplified pump with alarm system)
- (b) warming of refrigerated TPN solution for approximately 18 - 24 hours at room temperature

- (c) use of filter (.22 micron) - lipid solutions to be infused below filter as close to catheter as possible
 - (d) ordered additives (vitamins, etc.) to be added to TPN solution just prior to administration
- (3) signs/symptoms of complications and their specific interventions
- (a) hypo/hyperglycemia
 - (b) fluid overload
 - (c) dehydration
 - (d) local and systemic infections
 - (e) electrolyte imbalances
 - (f) breaks and leaks in administration set, catheter line, solution container
 - (g) thrombophlebitis
 - (h) air embolism
 - (i) bleeding
 - (j) fatty embolism
 - (k) occlusion
 - (l) separation of line
 - (m) infiltration
 - (n) pump problems
- (4) procedure for 24 hour problem reporting
- (a) physician
 - (b) HHA nurse
 - (c) supply company (vendor)
 - (d) ambulance
 - (e) pharmacist
- (5) notification of utility companies
- (6) list of composition of TPN solution to include amount and rate
- (7) cyclic or continuous administration
- (a) tapering schedule for cyclic administration as ordered
- (8) maintenance of patent central line-heparinization
- (9) use of approved central catheter clamps
- (a) proper clamping
 - (b) weekly rotation of clamp site
- (10) assessment of TPN containers for leaks, contamination and proper labeling

- (11) appropriate storage and rotation of supplies
- (12) recorded inventory checks on regular basis
- (13) appropriate refrigeration of TPN solutions
- (14) appropriate work area for preparation, initiation and discontinuation of TPN
- (15) safe discard of disposables
- (16) monitoring of urine sugar/acetone on a regular basis during and after TPN administration
- (17) daily monitoring of temperature
- (18) daily weights if practical
- (19) intake and output if ordered by physician
- (20) ongoing assessment for complications with notification of physician, HHA nurse if they occur
- (21) care of central catheter site (clean/sterile) (with Hickman/Broviac Catheters, use sterile technique first month, then may use clean technique)
 - (a) use of povidone/iodine prep at catheter site
 - (b) sterile occlusive dressing to be changed on a regular basis and prn
 - (c) percutaneous catheter-must use sterile technique
- (22) securing all catheter junctions and taping of catheter to body
- (23) daily changing of luer-lock catheter caps using sterile technique
 - (a) for multiple lumen catheter, change cap of active lumen
 - (b) use of Valsalva maneuver when changing caps of percutaneous line
- (24) TPN line should not to be used for other medical purposes (except where there are no other alternatives, terminal patients - no other venous access)
- (25) changing of administration set every 24 hours
- (26) TPN solution to hang no more than 24 hours

- (27) lipid solution to hang no more than 12 hours
 - (28) oral hygiene bid
 - (29) promotion of active physical exercise in accordance with patient's capabilities
 - b. Written instructions (to be sent home with patient/caregiver and to be attached to all home health agency referrals).
3. Physician Responsibilities
- a. The physician is to work in close collaboration with the pharmacist and hospital personnel in making the necessary arrangements for discharge of the patient.
 - b. The physician or his representative is to contact the Home Health Agency (HHA) and establish a Home Health Plan of Treatment for TPN Therapy and nursing visit(s).
 - c. Notification of primary care physician if other than the physician ordering the IV therapy.
 - d. Specifics:
 - (1) TPN therapy is to be ordered according to concentration of glucose/amino acid mixture, amount, rate, additives, duration, route and method of delivery
 - (2) Appropriate laboratory studies should include:
 - (a) SMA-18 or equivalent battery of tests, mg⁺ level 1 - 2 times per month after patient is stabilized
 - (3) Arrangements made for prompt notification of physician regarding lab values
 - (4) Periodic personal followup/clinical assessment by physician
 - (5) Determination as to discontinuation of TPN (specify tapering schedule)

4. Pharmacist Responsibilities

- a. Communicate with the physician, hospital personnel and HHA to coordinate resources necessary for discharge.

- b. Verify/evaluate physician's orders.
 - (1) Advise/counsel physician regarding availability and selection of TPN products
- c. Evaluate for reimbursement sources.
- d. Assist nurse and/or patient in teaching process as needed.
- e. Assure proper preparation of TPN solution.
 - (1) sterile technique required
 - (2) follow manufacturer instructions for preparation
 - (3) prepared by pharmacist or trained technician under direct supervision of pharmacist
- f. Prepare labels for TPN container to include:
 - (1) patient's name
 - (2) date
 - (3) physician
 - (4) concentration of glucose/amino acid mixture
 - (5) additives
 - (6) dosages
 - (7) expiration date
 - (8) required Federal labeling
 - (9) other precautionary statements if indicated
- g. Act as resource person for HHA nurse in regards to TPN solutions.
 - (1) storage of TPN
 - (2) stability
 - (3) compatibility
 - (4) preparation of TPN in home if not premixed
 - (5) rate
 - (6) necessary supplies
 - (7) administration
 - (8) complications
 - (9) other information specific to TPN

D. Community Services

1. Responsibilities of Home Health Agency Nurse^{1/}

- a. Collaborate with hospital staff to assure continuity of coordinated care between hospital and home to include communication with physician, medical suppliers, pharmacist and other health professionals as indicated.

^{1/} Refer to Appendix III for opinion statement of the Kentucky Board of Nursing (July 1984) regarding L.P.N. practice in IV Therapy.

- b. Contact with patient/caregiver same day as discharge from hospital.
- c. Assess patient's condition.
- d. Assess home environment and if found to be unsuitable, contact the physician.
- e. Assess, review and reinforce all items under Hospital Discharge Planning #2 (Teaching).
- f. Return demonstration by responsible person of procedures taught in the hospital.
- g. Assist in identifying additional resources (especially for relief) as needed.
- h. Review plans for follow-up care and coordinate community referrals as necessary.
- i. Assure consent form is signed.
- j. Assure that all supplies are in the home to render TPN Therapy.
- k. Notify the patient/caregiver of emergency numbers; home health agency, physician, medical supplier, and availability of 24-hour services.
- l. Visit patient on a regular and appropriate basis when on TPN therapy as deemed necessary by the physician and/or patient's condition.
- m. Assess for appropriate laboratory monitoring.
- n. Maintain regular contact with physician and other disciplines as indicated. Physician to receive prompt notification of lab results.
- o. Addition of extension set to percutaneous catheter if indicated.

Refer to NITA standards, specifically recommendations of practice listed under heading #32, Home IV Therapy Programs. (Appendix II)

E. Special Considerations

- 1. Self-Mixing of TPN Solutions in the Home.
 - a. Careful assessment of patient's or primary caregiver's willingness and physical and mental capability in self-mixing and administering TPN.

- b. Appropriate well-ventilated work area identified specifically for self-mixing.
 - c. Proper procedures for preparing work area just prior to self-mixing.
 - d. Sterile gloves to be worn during preparation (mask to be worn if deemed necessary - upper respiratory infection).
 - e. Sterile technique.
 - f. Demonstration at home by person preparing TPN.
 - g. Written instructions of step-by-step procedure for self-mixing.
 - h. Preparation to be done just prior to administration; therefore, refrigeration not required.
 - i. Agitation of TPN container after each additive.
 - j. Addition of additives in proper sequence (see manufacturer's instructions).
 - k. Follow other guidelines specified for pre-mixed TPN solutions.
2. Implantable Venous Access Devices (IVAD's) in TPN Therapy.
- a. Use of #19G Huber needle (right angle) with extension set. Needle to be changed weekly and prn.
 - b. Heparinization of IVAD with at least 9 cc Heparin (due to extension set).
 - c. Weekly dressing change to coincide with needle change (use transparent sterile dressing).
 - d. Keep record of number of punctures and gauge needle used.
 - e. Discourage use of IVAD for obtaining blood specimens.
 - f. Person with IVAD should carry ID regarding IVAD and its location.
 - g. Follow other guidelines for TPN specified in this protocol.

SECTION D

V. IV CANCER CHEMOTHERAPY IN THE HOME

Introduction

The following protocol reflects current, accepted practice in the administration of IV chemotherapy. Much research is being done in the field of IV chemotherapy which will result in new methods of treatment. Therefore, the guidelines contained herein are stated in general terms. Professional health personnel involved with home IV chemotherapy need to be aware of the rapid changes occurring in this type of therapy which will require that they contact knowledgeable medical personnel to obtain up-to-date information and guidance in the proper procedures necessary for safe administration of IV cancer chemotherapy in the home.

A. Medical Criteria

1. Initial doses of IV chemotherapy given in medical facility (hospital, outpatient clinic or other location where physician in attendance).
2. IV chemotherapy can be safely administered in the home.
3. Patient has difficulty accessing medical facility and desires chemotherapy in the home.
4. Acceptable lab values (blood counts and chemistries as indicated) with periodic evaluations.
5. Assessment of patient's physical and mental status by physician to determine candidacy for home IV chemotherapy.
6. Approved and seen by physician in preceding 24-48 hours with arrangements made.
7. Provision made for local physician to follow if patient has more than 2 hour drive to location where chemotherapy was instituted. Arrangements should include written correspondence, discharge summaries and lab and x-ray reports as a minimum.

B. Hospital Discharge Planning

The following items are the responsibility of the hospital staff under the direction of the physician ordering the home IV chemotherapy. All activities must be completed and documented in the patient's record prior to discharge.

1. Assessment
 - a. Patient's and/or primary caregiver's willingness and mental and physical capability in administering IV chemotherapy.

- b. Patient's and/or primary caregiver's acceptance and understanding of the purposes, responsibilities, risks, and benefits of home IV chemotherapy.
- c. Mutual consent of caregiver and/or patient and physician. Consent form for home IV chemotherapy signed by patient or other legally responsible person prior to discharge with signed copy of form to home health agency. A sample of a consent form has been included. (Appendix I)
- d. Availability of medical supply delivery system.
- e. Physical facilities of the patient's residence should be appropriately equipped and conducive to the safe administration of IV chemotherapy.
- f. Accessibility of the home to health professionals. (Consideration of travel time as opposed to actual mileage.)
- g. Availability of nursing and pharmacy personnel on a 24-hour basis.
- h. The illness or condition should be amenable to care at home including reasonable expectation that the patient's medical, nursing and social needs can be met adequately in the home including a plan to meet medical emergencies.

2. Teaching

Teaching (includes instruction, discussion, demonstration of IV chemotherapy techniques and return demonstration by patient and/or primary caregiver) until person taught is competent in procedures to be followed at home.

Recommendations:

- Standards of teaching should be those of the National Intravenous Therapy Association (NITA). (Appendix II)
- Nursing personnel teaching IV chemotherapy should have specialized IV skills and be knowledgeable in the specifics of IV chemotherapy (may refer to pharmacist, manufacturer's instructions, etc.).
- Teaching should be done using simplified terms at the patient and/or caregivers level of understanding.

a. Specifics of Teaching:

- (1) aseptic technique

(2) proper administration of IV chemotherapy

- (a) refrigeration of chemotherapy solutions in a separate compartment in refrigerator (sealed in plastic container)
- (b) warming of chemotherapy solution according to pharmacists' instructions
- (c) use of .22 micron filter (Exception: No filter with actinomycin-D)
- (d) use of appropriate infusion device (small volume with alarm)

(3) complications

(a) drug-related (depends on type chemotherapy agent being administered)

- (1) oral lesions
- (2) G-I disturbances
- (3) alopecia
- (4) neurological disturbances
- (5) anemia
- (6) hematological side effects
- (7) electrolyte imbalances
- (8) cardiac toxicity
- (9) pulmonary toxicity
- (10) vascular disturbances
- (11) flu-like syndrome (malaise)
- (12) genitourinary disturbances
- (13) anaphylaxis

aa. specify procedures for treating/transporting

(b) prompt notification of physician when complications/side effects occur

(c) other complications

- (1) sepsis
- (2) breaks and leaks in administration set, catheter line, solution container
- (3) thrombophlebitis
- (4) air embolism
- (5) bleeding
- (6) occlusion
- (7) separation of line
- (8) extravasation

aa. specify procedures to use for extravasation

(9) pump problems

- (4) procedure for 24 hour problem reporting
 - (a) physician
 - (b) HHA nurse
 - (c) supply company (vendor)
 - (d) ambulance
 - (e) pharmacist
 - (5) notification of utility companies
 - (6) list of composition of chemotherapy solution to include amount, rate and expiration date
 - (7) short or long term administration (depends on drug ordered)
 - (8) maintenance of patent central line-heparinization
 - (9) use of approved central catheter clamps
 - (a) proper clamping
 - (b) weekly rotation of clamp site
 - (10) assessment of chemotherapy containers for leaks, contamination and proper labeling (do not squeeze bag)
 - (11) appropriate storage and rotation of supplies
 - (12) recorded inventory checks on regular basis
 - (13) appropriate work area for initiation and discontinuation of chemotherapy solution
- Note: Strongly recommend that chemotherapy solutions not be mixed in the home.
- (14) disposable gown, latex gloves and mask to be worn during initiation and discontinuation of chemotherapy solution - use double gloves for cleaning spills
 - (15) discard all disposables in contact with chemotherapy solution in leak and puncture proof containers marked hazardous wastes and place in sealed container - transport to medical facility for disposal
 - (16) procedure to be used if accidents occur - accidental needlestick, spills
 - (17) daily monitoring of temperature
 - (18) daily weights if practical

- (19) ongoing assessment for complications with notification of physician, HHA nurse if they occur
 - (20) care of central catheter if patient has one (clean/sterile-with Hickman/Broviac Catheters, use sterile technique first month, then may use clean technique)
 - (a) use of povidone/iodine prep at catheter site
 - (b) sterile occlusive dressing to be changed on a regular basis and prn
 - (c) percutaneous catheter-must use sterile technique
 - (21) securing all catheter junctions and taping of catheter to body
 - (22) changing of luer-lock catheter caps using sterile technique after each dose chemotherapy; twice per week when not receiving chemotherapy
 - (a) for multiple lumen catheter, change cap of active lumen
 - (b) use of Valsalva maneuver when changing caps of percutaneous line
 - (23) chemotherapy line should not be used for other medical purposes (except where there are no other alternatives, terminal patients - no other venous access)
- Note: Strongly recommend that home IV chemotherapy be administered via central line, especially vesicants.
- (24) change IV tubing with each dose of chemotherapy (for a 3-5 day continuous infusion, do not change tubing). All tubing to be primed with chemotherapy solution prior to infusion
 - (25) chemotherapy solution to hang for as long as ordered
 - (26) all connecting sites on IV apparatus are to have luer-lock devices and be taped
 - (27) oral hygiene bid
 - (28) promotion of active physical exercise in accordance with patient's capabilities

- b. Written instructions to be sent home with patient/caregiver and to be attached to all home health agency referrals.

3. Physician Responsibilities

- a. The physician is to work in close collaboration with the pharmacist and hospital personnel in making the necessary arrangements for discharge of the patient.
- b. The physician or his representative is to contact the Home Health Agency (HHA) and establish a Home Health Plan of Treatment for chemotherapy and nursing visit(s).
- c. Notification of primary care physician if other than the physician ordering the chemotherapy.
- d. Specifics:
 - (1) chemotherapy orders to include:
 - (a) name of drug
 - (b) dose
 - (c) rate
 - (d) duration
 - (e) route
 - (f) method of delivery
 - (2) periodic lab studies required and ordered according to drug being given
 - (3) periodic assessments of patient by physician and/or representative
 - (4) automatic stop orders for IV chemotherapy for particular lab values and/or physical findings

4. Pharmacist Responsibilities

Introduction

Pharmacists involved in the preparation of IV chemotherapy agents should possess adequate knowledge and skills related to the specific requirements of ordering, storing, preparing, handling and disposing of chemotherapy drugs and supplies. They should also be knowledgeable regarding proper dilutions, administration guidelines and special precautions. It is recommended that these pharmacists possess up-to-date reference materials and develop good working relationships with personnel who are experts in the field of chemotherapy.

- a. Communicate with the physician, hospital personnel and HHA to coordinate resources necessary for discharge.
- b. Verify/evaluate physician's orders according to compatibility with other drugs/fluids, dose levels, administration rates.
- c. Evaluate for reimbursement sources.
- d. Assist nurse and/or patient in teaching process.
- e. Assure proper preparation of chemotherapy solution.

Note: Recommend that Type II, Class B3 vertical flow hood be used for preparation.

- (1) sterile technique required
- (2) follow manufacturer's instructions for preparation
- (3) prepared by pharmacist or trained technician under direct supervision of pharmacist using proper attire as indicated
- f. Prepare labels for chemotherapy container to include:
 - (1) patient's name
 - (2) date
 - (3) physician
 - (4) concentration of chemotherapy agent
 - (5) dosages
 - (6) expiration date
 - (7) required Federal labeling
 - (8) other precautionary statements
- g. Act as resource person for HHA nurse in regards to chemotherapy agents.
 - (1) storage
 - (2) stability
 - (3) compatibility
 - (4) rate
 - (5) necessary supplies
 - (6) administration
 - (7) complications
 - (8) other information specific to chemotherapy agent being used
 - (9) proper disposal of supplies used in administration of chemotherapy
- h. Maintain patient profile including cumulative doses of chemotherapy agent.

D. Community Services

1. Responsibilities of Home Health Agency Nurse^{1/}
 - a. Collaborate with hospital staff to assure continuity of coordinated care between hospital and home to include communication with physician, medical suppliers, pharmacist and other health professionals as indicated.
 - b. Contact with patient/caregiver same day as discharge from hospital.
 - c. Assess patient's condition.
 - d. Assess home environment prior to patient discharge and, if found to be unsuitable, contact the physician.
 - e. Assess, review and reinforce all items under Hospital Discharge Planning #2 (Teaching).
 - f. Return demonstration by responsible person of procedures taught in the hospital.
 - g. Assist in identifying additional resources (especially for relief) as needed.
 - h. Review plans for follow-up care and coordinate community referrals as necessary.
 - i. Assure consent form is signed.
 - j. Assure that all supplies are in the home to render chemotherapy.
 - k. Notify the patient/caregiver of emergency numbers; home health agency, physician, medical supplier, and availability of 24-hour services.
 - l. Visit patient on a regular and appropriate basis when on chemotherapy as deemed necessary by the physician and/or patient's condition.
 - m. Assure periodic laboratory monitoring specific to the chemotherapy being ordered.
 - n. Maintain regular contact with physician and other disciplines as indicated. Physician to receive prompt notification of lab results and physical assessment findings.

^{1/} Refer to Appendix III for opinion statement of the Kentucky Board of Nursing (July 1984) regarding L.P.N. practice in IV Therapy.

- o. Strict adherence to proper disposal of chemotherapy supplies.
- p. Maintain close contact with pharmacist regarding chemotherapy agent being used.
- q. If patient on 3-5 day concentrated infusion, at termination of infusion, withdraw remaining chemotherapy agent out of central line (volume will depend on type of central catheter), flush with saline and heparinize.
- r. Carefully assess for extravasation if IVAD (implantable venous access device) is being used.

Refer to NITA standards, specifically recommendations of practice listed under heading #32, Home IV Therapy Programs. (Appendix II)

APPENDIX I

Patient's Consent For Non-Nurse Administered
Intravenous Therapy In The Home

I, _____ consent to
(Patient's Full Name)
_____, who is my _____ having
(Full Name) (Relationship)
responsibility for administering intravenous medications/fluids prescribed
by my physician and needed by me at my home.

I understand that _____ will be administering
(Full Name)
and monitoring the intravenous therapy in the absence of the visiting
nurse.

I understand that _____ has received instruction,
(Full Name)
but that the instruction is not as complete as the training of the nurse.

I understand that only specially trained nurses will be assigned to
provide home care to me and that precautions will be taken to avoid
complications. However, I realize that at times complications occur
despite meticulous attention.

I understand that a visiting nurse service is an intermittent
service and the nurse may not be present at the time of the therapy or
when complications/emergencies could arise.

I agree to release _____
(Name of Home Health Agency)
and any of its agents, servants or employees from any and all claims or
causes of action which I, or any of my heirs, successors, or assigns may
have arising out of the administering of my intravenous therapy whether
or not it is related to the instruction which _____
(Full Name)
received or any other reason.

I have the right to discontinue home intravenous therapy upon
notification of my doctor.

My signature certifies that I have read and understand and consent
to the administration of intravenous therapy in the home.

(Date) Signed: _____
(Patient)

(Witness) Or: _____
(Responsible Adult)

(Relationship to Patient)

all associated knowledge and understanding of all possible complications associated with I.V. therapy and the ability to recognize the occurrence of such reactions, make clinical judgements and initiate proper nursing intervention.

l. Blood Component Therapy

To provide the registered professional nurse with knowledge of immunohematology, blood grouping, blood and blood components, equipment and reactions. The registered professional nurse shall be knowledgeable of the selection and protection of blood donors, the fractionation of blood into its components and the laboratory testing required for determining compatibility. Emphasis shall be placed on the administration of blood and its components and the recognition and management of any adverse reactions which the patient may experience.

m. Parenteral Nutrition

To provide the registered professional nurse with the knowledge in clinical application of parenteral nutrition including assessment, initiation, maintenance and termination of the therapy. Emphasis should be placed on metabolic processes, potential complications and preventive measures to insure the desired therapeutic effect.

n. Chemotherapy

To provide the registered professional nurse knowledge and understanding of the basic principles of cancer therapy and administration of I.V. antineoplastic agents.

2. Clinical

All clinical aspects of I.V. therapy shall be supervised until proficiency is determined acceptable by observation and approval of returned demonstrations and clinical judgement is assessed as competent.

APPENDIX II

Standards Recommendations of Practice

1. I.V. Nursing Teams

Professional, specially trained I.V. nursing teams decrease the risk of I.V. related complications and infections, insure patient protection, deliver quality I.V. care and are cost effective.

Recommendations of Practice

1. I.V. nursing teams should be placed under one of the following hospital departments: Pharmacy, Blood Bank, Pathology, Administration, and have a close relationship with Nursing Service and the Infection Control Department.
2. I.V. Departments should be an independent department.
3. I.V. Departments should be cost effective.
4. I.V. Departments shall have a medical advisor who is a physician.
5. All I.V. policies and procedures shall be approved by a member of the medical staff.
6. All I.V. policies and procedures shall be reviewed and updated annually.

2. I.V. Policies and Procedures

To insure safe and standardized I.V. therapy within the health care facility; to protect the patient by maximizing benefits and minimizing risks associated with this therapy and to protect the practice(s) of the registered professional I.V. nurse.

Recommendations of Practice

1. I.V. policies shall be written general statements that encompass a specific area of practice.
2. I.V. procedures shall be written and specifically detailed to a particular I.V. practice.
3. I.V. policies and procedures shall be submitted by an I.V. Supervisor, by the medical staff and appropriate hospital governing body that governs the specialty of I.V. therapy.
4. I.V. policies and procedures that are established within a given institution are solely intended for use within that particular institution.
5. I.V. policies and procedures shall be updated continuously and reviewed annually.
6. All registered professional I.V. nurses are accountable for thorough knowledge of the I.V. policies and procedures within their particular institution.
7. I.V. policies and procedures should be in keeping with these Standards.

3. Initiation of I.V. Therapy

The initiation of I.V. therapy shall be to provide intravascular access for definite therapeutic or diagnostic indications.

Recommendations of Practice

1. Ascertain the physician's order.

written and signed. If a verbal order is taken from a physician by a registered professional L.V. nurse, the verbal order shall be written and signed as soon as possible.

3. The nursing process shall be utilized in evaluating the medical order and the patient's needs.
4. Identify the patient.
5. Explain the procedure, specific therapy and consideration of therapy to the patient.
6. Collect and assemble appropriate equipment so the equipment will be aseptically handled in order of its use.

4. Choice of Cannula for Peripheral Infusions

Use the smallest gauge device that will achieve the prescribed treatment and a vein large enough to maintain sufficient blood flow around the L.V. device.

1. Plastic catheters shall be used for routine peripheral L.V. therapy in order to establish a secure access to the vascular system.
2. Stainless steel cannulas may be used for short-term or one-dose peripheral L.V. therapy but tend to infiltrate and dislodge more frequently than L.V. plastic catheters.
3. This Association advocates the use of radiopaque catheters for L.V. use.
4. Stylets shall never be reinserted when L.V. catheters are initiated.
5. Through-the-needle catheters are not recommended for routine peripheral L.V. use.
6. Only one device shall be utilized for each attempt.
7. The nurse should not make more than two attempts to initiate L.V. therapy.

5. Handwashing

Before inserting an L.V. cannula, hospital personnel shall wash their hands.

Recommendations of Practice

1. Soap and water is adequate for most peripheral insertions.
2. An antiseptic solution should be used for handwashing prior to the insertion of peripheral central catheters.

6. Site Selection

In vein selection, the patient's condition, vein condition, age and the type and duration of therapy shall be assessed to insure ideal and safe L.V. access.

Recommendations of Practice

1. Veins most appropriate for L.V. therapy are metacarpal veins, cephalic veins, basilic veins and the median veins.
2. Start peripheral routine L.V. therapy in distal areas of the upper extremities.
3. Palpation of the vein is important in assessing the condition of the vein and in differentiating it from an artery. Fingers should be used for palpation to access the vein. The thumb shall not be used since it is not as sensitive as the

fingers and the ulnar pulse may be confused in detecting an artery.

4. To distend the vein, apply a tourniquet or pressure cuff 4-6 inches above the site selected.
5. Tourniquets should be applied with enough pressure to stop venous flow but not arterial flow.
6. Application of heat may be indicated for promotion of vein dilation. Care should be taken to avoid burns when applying heat.
7. Subsequent venipunctures should be made in areas proximal to previous L.V. sites.
8. Avoid the antecubital fossa since this is the preferred site of venipuncture for drawing blood tests and peripheral central line access.
9. Avoid lower extremities (legs) unless specifically ordered by the physician or necessitated by the patient's condition.
10. Cannulas inserted into lower extremities shall be changed as soon as a satisfactory site can be established.
11. Avoid previously used veins, injured veins and eczematous veins and areas of flexion unless you immobilize the joint with an armboard or similar device.
12. Avoid veins in the affected arm of an axillary dissection.

Consideration

Liquid crystal thermographic patterns may be considered in evaluating venous physiology for site selection.

7. Site Preparation

The L.V. site shall be scrubbed with an antiseptic solution prior to venipuncture insertion.

Recommendations of Practice

1. If necessary, wash the skin with soap and water prior to application of antiseptic solution.
2. When excessive hair exists, clipping the hair is recommended rather than shaving.
3. Tincture of iodine (1-2%), iodophors or 70% isopropyl alcohol can be used as antiseptic solutions.
4. If the patient is sensitive to iodine, 70% isopropyl alcohol is recommended.
5. The antiseptic solution should be applied liberally and allowed to dry.
6. In an emergency, when there has been inadequate skin preparation, as soon as the patient has been stabilized, a second line should be established, the emergency line removed and the previous site observed for 48 hours.

8. Cannula Placement

Safe and effective L.V. access is accomplished by strict aseptic cannula placement.

Recommendations of Practice

1. Prior to use, the nurse shall confirm the integrity of the product.
2. Product defects should be ascertained by inspection and if defective, the product should be discarded and returned to the manufacturer.

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sites for peripheral vascular access.

4. Strict aseptic technique shall be adhered to for cannula placement. In an emergency situation, when an I.V. cannula has been placed without adequate skin preparation, the I.V. cannula should be removed as soon as possible and the previous site observed for 48 hours.
5. Irrigation of I.V. cannulas should be avoided.
6. The type, gauge, length, insertion date and initials of person inserting the device shall be recorded in the medical record and written on a tape, close to the dressing, where it can be easily identified.
7. The cannula should be secured to stabilize it at the insertion site.
8. The nurse shall ascertain patency and placement of the cannula after placement. Evaluation of patency and placement should continue throughout therapy.

Consideration

Maximum mobility and easy viewing should be taken into consideration when taping and securing an I.V. cannula.

9. **Cannula Site and I.V. Dressing Care**
Cannula site and I.V. dressing care is to provide regular, standardized cannula site inspection, site care and to apply a sterile dressing. These measures should reduce or prevent the complications of cannula related sepsis.

Recommendations of Practice

1. If a topical ointment is used, it should be applied at the I.V. site at the time of insertion.
2. If a topical ointment is used, the use of antimicrobial (povidone-iodine) is the ointment of choice and widely accepted.
3. A sterile dressing shall be applied over all I.V. sites to cover the I.V. cannula entrance site.
4. A sterile transparent, semi-permeable membrane adhesive dressing may be applied over I.V. sites to cover the I.V. cannula entrance site.

Consideration

Some researchers have suggested that the use of polyantibiotic ointment may be efficacious at the skin-cannula junction site and that antiseptic ointments, e.g., povidone-iodine have marginal benefits.

10. I.V. Cannula Removal

Peripheral I.V. cannulas shall be routinely changed every 48-72 hours. Peripheral I.V. cannulas shall be inspected and evaluated through an intact dressing at least every 8 hours. These measures should reduce or prevent cannula related complications.

Recommendations of Practice

1. Routine peripheral I.V. cannulas shall be changed to a new site every 48-72 hours provided no I.V. related complications are encountered before this time.
2. Cannulas inserted in an emergency situation

new site at the earliest opportunity.

3. Peripheral cannulas that must remain in place for prolonged periods (over 72 hours) due to the patient's condition should be considered a higher risk of potential complication and require more frequent assessment and evaluation.
4. The cannula should be removed if there is pain or tenderness at the insertion site.
5. Intermittent devices (heparin locks) shall be treated as peripheral cannulas.
6. Central catheters that are inserted through a peripheral vein and peripheral arterial catheter should be treated as a peripheral catheter. The proper frequency for changing these catheters is not known.
7. The nurse, as dictated by hospital policy, will remove central venous catheters, using aseptic, no-touch technique.
8. To ascertain complete removal of the catheter, the nurse will assess the length of the terminated catheter and inspect visually the tip for smoothness.

Considerations

1. The nurse, as dictated by established hospital policy, will culture appropriately the catheter in a routine, standardized manner, using aseptic, no touch technique. This practice should be especially encouraged when the catheter is suspected of being contaminated or when the patient has an unexplained fever.
 2. A semiquantitative method of catheter culture is recommended.
11. **I.V. Administration Set Change**
Changing the I.V. administration set is to prevent or minimize sepsis related to the I.V. delivery system.

Recommendations of Practice

1. I.V. administration tubing shall be changed every 24-48 hours.
2. Changing of I.V. administration sets should be carried out in a routine, standardized manner and at the time a new container of I.V. solution is initiated.
3. An appropriate method of indicating the date of change of administration shall be employed.
4. "Piggy-back" tubing shall be routinely changed every 24 hours.
5. "Piggy-back" administration sets accommodating blood, blood products or lipid emulsions should be changed immediately after their administration.
6. I.V. administration sets used for Total Parenteral Nutrition should be changed every 24 hours.
7. Tubing junctions should be secured by an appropriate method such as can be accomplished with a luer lock or junction clamping device.
8. All additives to the administration set such as stop-cocks and extension tubings should be changed at the same time the I.V. administration set is changed.

9. I.V. systems should be changed or replaced whenever possible. All entries into the administration set such as the administration of medications should be made through injection ports that are disinfected before entry.

10. Blood specimens should not be withdrawn through I.V. tubing.
11. Flushing or irrigation of the I.V. system to improve flow should be avoided.
12. The entire I.V. system (cannula, administration set and fluid) shall be changed immediately if purulent thrombophlebitis, cellulitis or I.V. related bacteremia are noted or strongly suspected.
13. For phlebitis, without concomitant signs of infection, the cannula and administration set should be changed and the fluid evaluated as a possible source for phlebitis.

12. Dressing Changes

Changing I.V. dressings is to evaluate the insertion site, prevent complications and minimize sepsis.

Recommendations of Practice

1. The I.V. dressing should be changed every 24-48 hours and immediately if the dressing becomes soiled, wet or loose.
2. Aseptic technique shall be used to change I.V. dressings.
3. During dressing change, the insertion site should be inspected and evaluated for redness, swelling and other signs and symptoms of infection.
4. If the dressing is changed, the site should be cleaned with 70% isopropyl alcohol or povidone-iodine solution and allowed to dry, followed by reapplication of iodophor ointment and sterile dressing.

13. Culturing for Suspected I.V. Related Infections

Culturing is to ascertain the source and microorganisms of suspected contamination.

Recommendations of Practice

1. If the I.V. system is terminated because of suspected I.V. related infection, i.e., purulent thrombophlebitis and bacteremia, the skin at the cannula junction should be cleaned with alcohol and allowed to dry before the cannula is removed. The cannula should be cultured using a semiquantitative technique.
2. If the I.V. system is terminated because of suspected fluid contamination or related bacteremia, the fluid should be cultured and the implicated bottle saved and the lot number recorded.
3. If intrinsic contamination (contamination during manufacturing) is suspected, the health authorities should be notified immediately.

14. Quality Control of I.V. Solutions

To observe for possible intrinsic contamination and assure against possible extrinsic contamination.

complications.

Recommendations of Practice

1. Personnel shall wash their hands before opening and administering parenteral fluids.
 2. All containers of parenteral fluid shall be inspected prior to use and checked for visible turbidity, discoloration, leaks, cracks, damaged caps, particulate matter and for the manufacturer's expiration date before use. If a problem is found, the fluid shall not be used.
 3. Once started, all parenteral fluids shall be completely used or discarded within 24 hours.
 4. Infusions of lipid emulsions should be completed within 12 hours of starting.
 5. All parenteral solutions shall have affixed a label indicating time and date started.
- ## 15. Admixture of Parenteral Fluids
- To insure control and minimize possible complications of parenteral compounding.

Recommendations of Practice

1. Parenteral and hyperalimentation fluids should be admixed in the pharmacy unless clinical urgency requires admixture in patient-care areas.
2. Personnel shall wash their hands before admixing.
3. Single dose vials should be used for admixture whenever possible.
4. All medications should be compounded using the manufacturer's recommendations.
5. A collective supplementary label shall be affixed to all admixed (compounded) parenteral solutions stating the additive, dosage, solution amount, date, time of compounding, expiration date and person who did the compounding.
6. A laminar flow hood should be used for admixing parenteral solutions.
7. Handling of admixtures should be in keeping with the Recommendations Guidelines and Standards of the American Society of Hospital Pharmacists.
8. Compatibility of solution ingredients shall be authorized by the pharmacy before admixing.
9. In the absence of a vacuum, an I.V. solution container shall be covered with a sterile air tight, water proof cover after admixture.
10. When admixing occurs outside the pharmacy, hospital policy shall be strictly observed and absolute aseptic technique practiced.

16. Intermittent I.V. Therapy

A mechanism for intermittent I.V. therapy shall be employed to provide intravascular access for the patient whose condition will possibly require or necessitate definite therapeutic or diagnostic I.V. therapy. Intermittent I.V. therapy shall be employed when continuous therapy is not required by the patient's condition.

Recommendations of Practice

1. Intermittent vascular access shall be treated as I.V. peripheral catheters.

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7. All I.V. cannulas locked with a rubber port male adapter may be used for intermittent I.V. therapy.

3. If heparin is used, a dose of heparin that does not alter the patient's clotting factors shall be used for maintaining patency of I.V. intermittent cannula devices. These devices should be flushed with heparinized saline solution routinely and whenever necessary to maintain patency.

4. The use of obturators is not recommended.

5. In flushing intermittent devices, consideration should be given to drug incompatibilities.

6. Use of small bore and short length needles is recommended for administering I.V. therapy through rubber ports of the intermittent device.

7. The optimal frequency for entering the rubber port is not known and leakage depends on the size of the needle inserted through the rubber port and the specific grade of rubber.

8. Utilization of intermittent devices may be established by hospital policy and may be useful in the maintenance of intermittent medications, blood and blood components, I.V. fluids, or as vascular access for the critically ill patient or unstabilized patient, for laboratory procedures and for home I.V. therapy.

17. Labeling of I.V. Administration Sets, Cannulas and I.V. Solutions

1. All I.V. solutions shall be labeled according to the Standards of Practice as stated in the section *Quality Control of I.V. Solutions* under the Recommendations of Practice.

2. All admixed parenteral fluids shall be labeled according to the Standards of Practice as stated in the section *Admixture of Parenteral Fluids* under the Recommendations of Practice.

3. All I.V. administration sets shall be labeled according to the Standards of Practice as stated in the section *I.V. Administration Set Change* under the Recommendations of Practice.

4. All I.V. cannulas shall be labeled according to the Standards of Practice as stated in the section *Cannula Placement* under the Recommendations of Practice.

18. Administration of I.V. Medications

Administration of I.V. medications shall be initiated by a prescription of a medical doctor and provide a therapeutic outcome.

Recommendations of Practice

1. The registered professional I.V. nurse may administer I.V. medications which have been established by hospital policy and in accordance with individual state regulations.

2. The health care facility shall provide a list of approved I.V. medications which includes generic and trade name, indications for usage, dosage with maximum limit, side effects, rate of administration, stability and storage requirements, appropriate diluents, incompatibilities,

toxicity, specific precautions and nursing interventions.

3. Prior to administering an I.V. medication, the registered professional I.V. nurse shall be cognizant of the implications of I.V. medication.

4. If an I.V. medication has possible allergic implications, it is recommended that the physician administer the first dose.

5. The approved drug list shall be updated and added to continually.

6. The approved drug list shall be reviewed annually.

7. The patient shall be evaluated for possible drug sensitivity and possible complications prior, during and after I.V. medication administration.

8. Administration of I.V. medications shall be documented in the patient's permanent record.

9. Aseptic technique shall be adhered to in the administration of I.V. medications.

19. Administration of I.V. Investigational Drugs
The administration of I.V. investigational drugs shall be initiated by a prescription of a medical doctor with approval of the health care facility and provide a therapeutic outcome.

Recommendations of Practice

1. The administration of I.V. investigational drugs shall be in accordance with the Standards of Practice as stated in the section *Administration of I.V. Medications* under the Recommendations of Practice.

2. The health care facility shall establish specific guidelines, policies and procedures for the administration of I.V. investigational drugs and these guidelines, policies and procedures shall be stated in the I.V. Policy and Procedure Manual.

3. A separate approved list for the use of I.V. investigational drugs shall be employed.

4. All I.V. investigational drugs shall be approved by a hospital committee.

5. I.V. investigational drugs shall be initiated with the patient's consent.

6. I.V. investigational drugs shall be reviewed and monitored by the medical staff.

20. I.V. Push Medications

To provide instant absorption of I.V. medications in the blood, immediate therapeutic effect in an emergency situation and for a specific drug peculiarity.

Recommendations of Practice

1. An approved, separate list of I.V. push medications shall be provided by the health care facility and stated in the I.V. Policy and Procedure Manual.

2. The administration of I.V. push medications shall be initiated on the order of a medical doctor or on the judgement of a registered professional I.V. nurse in a life-threatening emergency situation according to the policy of the health care facility.

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3. The administration of I.V. push medications should be in accordance with the Standards of Practice in the section *Administration of I.V. Medications* under the *Recommendations of Practice*.

4. Special emphasis shall be given to the rate of administration.

5. I.V. push medications shall be diluted sufficiently and according to the manufacturer's recommendations.

21. .22 Micron Air Eliminating Filters

To protect the patient from induced particulates, possible air emboli, pathogenic bacteria (microorganisms) and to minimize the risk of I.V. related complications and sepsis.

Recommendations of Practice

1. The routine use of .22 micron air eliminating filters is advocated in delivering routine I.V. therapy since these filters effectively remove particles and bacteria and prevent air from entering the I.V. system.

2. .22 micron air eliminating filters should be routinely changed every 24-48 hours.

3. Possible retention due to low dosage, solubility and absorption properties of I.V. drugs through a .22 micron air eliminating filter shall be considered and follow the manufacturers' recommendations.

4. Lipid emulsions and blood and blood products shall not be filtered through a .22 micron air eliminating filter.

5. The pressure tolerance of the filter housing and membrane shall be a major consideration prior to use.

6. The tolerated psi (pounds per square inch) of a filter shall not exceed the maximum pressure (psi) exerted by the I.V. pump.

7. .22 micron air eliminating filters should be placed at the terminal end of the I.V. administration set (as close to the I.V. cannula as possible).

Considerations

1. This Association believes that the use of .22 micron air eliminating filters is cost justified.

2. From an infection standpoint only, the Centers for Disease Control does not recommend the routine use of .22 micron air eliminating filters. Their recommendation is based on the lack of definitive studies to date, on the efficacy of .22 micron air eliminating filters studying filtration from an infection control standpoint. Such studies are difficult to accomplish. However, there have been many definitive studies attesting to the benefits of final filtration, e.g., minimizing phlebitis which is a precursor to infection and their air elimination properties protecting the patient from air emboli. Since .22 micron air eliminating filters screen out particles, remove microorganisms and prevent air from entering the I.V. system, the National Intravenous Therapy Association believes that many benefits of final filtration have been

very well documented in the literature on use of .22 micron air eliminating filters mixes potential risk to the patient, thus, its use is recommended routinely for all I.V. apy. Furthermore, their cost is justified, possibly cost effective by considering possible complications of therapy resulting in possible further medical treatment and longer patient stay days.

3. No I.V. filter is available that will prevent the passage of endotoxins or pyrogens.

4. Consideration should be given to the filter surface area to insure necessary flow rates.

5. Automatic air venting allows air bubbles to escape to the atmosphere.

22. Mechanical Controlling Devices

The use of mechanical controlling devices is to provide minimal deviation from the prescribed medical order in the delivery of solutions and/or medications, thus reducing the risk of possible I.V. complications.

Recommendations of Practice

1. Delivery of all aspects of I.V. therapy shall be controlled with minimal deviation from the prescribed rate ordered.

2. The use of gravity feed mechanical devices, e.g., I.V. controllers is advocated for the majority delivery of I.V. therapy.

3. The use of pressure feed mechanical devices, e.g., I.V. pumps is recommended for controlled I.V. delivery when a specified accuracy of delivery is mandatory due to patient risk.

4. I.V. pumps should maintain I.V. delivery within stringent deviation of the prescribed medical order and their accuracy or deviated limit (plus or minus) shall be stated by the manufacturer.

5. All I.V. electronic devices shall be routinely cleaned and checked for any possible malfunctions.

6. The use of electronic mechanical controlling infusion devices shall be prioritized and stated by hospital policy in the I.V. Policy and Procedure Manual.

7. The registered professional I.V. nurse shall be proficient and knowledgeable in the use of mechanical controlling devices within the health care facility.

8. Operating instructions for electronic mechanical I.V. controlling devices shall be affixed to the device.

9. Audible and visible alarms to detect air, deviated flow, occlusion, and any other deviations placing the patient at risk shall be integrated within the mechanical infusion device.

10. If the mechanical controlling device is battery operated, the life and potency of the battery(s) should be ascertained and changed accordingly.

11. Mechanical electronic controlling devices should be patient tamperproof.

Considerations

1. Consideration should be given to maximum

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occasional pressures must not be permitted to exceed.

2. Consideration should be given to accuracy over the range of back pressures.
3. The registered professional I.V. nurse should be cognizant of the Standards on Infusion Devices set forth by the Association for the Advancement of Medical Instrumentation.

21. Blood Component Therapy

The initiation of blood and blood component therapy shall be on the order of a medical doctor and shall provide a safe and therapeutic outcome as prescribed.

Recommendations of Practice

1. The administration of blood and blood components by a registered professional shall be in accordance with federal and state regulations and established hospital policy.
2. The administration of blood and blood components shall only be assumed by the registered professional nurse after successful testing of theory in immunohematology, blood grouping, blood and blood components and reactions, clinical competency of administration techniques and identification protocol of patient and products and nursing interventions for possible reactions shall be validated.
3. Policies and procedures for administration of blood and blood components shall be approved by the Medical Director of the Blood Bank and reviewed annually.
4. The patient may be required, according to established hospital policy, to sign a consent form prior to administering blood and blood component therapy.
5. The patient should be evaluated prior to, during and after blood and blood component administration.
6. All blood and blood products should be inspected prior to use to insure the integrity of the product and product expiration.
7. The physician's order for blood and blood components shall be written clearly and specifically.
8. The patient shall be observed for at least five minutes after the initiation of blood and blood components.
9. Adherence to aseptic technique in the administration of blood and blood components is mandatory.
10. The size of the cannula should be appropriate for accommodating blood or blood components.
11. The registered professional nurse shall be accountable for implementing appropriate intervention on all blood and blood component reactions.
12. Blood and blood products shall not be placed in a unit refrigerator where the temperature(s) are not specifically controlled and regulated for blood and blood products.
13. The use of 170 micron filters is recommended

for routine administration of whole and blood components.

14. All initiation, termination and nursing intervention regarding blood and blood components shall be documented in the patient's record.
15. Interchange of blood and blood products shall be stated in established hospital policy.
16. The time for infusing blood or blood components shall be in keeping with the Bureau of Biologics, the American Association of Blood Bank Standards and any exception should be established in hospital policy with approval of the Medical Director of the Blood Bank.
17. The temperature variance for blood and blood products, prior to use, should be in keeping with the American Association of Blood Banks.
18. The use of blood warmers is advocated in certain medical conditions, e.g., Raynaud's Disease or a patient with cold agglutinins. These machines shall be checked routinely for temperature control and any malfunction.
19. Generally, no medication or solution should be added to blood or blood components unless approved by the Medical Director of the Blood Bank and established by hospital policy.
20. I.V. administration sets should be changed after the administration of blood and blood products.
21. When appropriate, I.V. lines should be flushed with saline solutions rather than dextrose solutions prior to and after administering whole blood or red cells since dextrose causes hemolysis of the red cell.
22. Blood and blood products should not be administered in conjunction with other I.V. solutions or interrupted for administration of another I.V. solution.

Considerations

1. The principle governing transfusion therapy is component therapy.
2. The use of fresh blood and blood components minimizes adverse reactions.
3. The use of microaggregate filters (20-40 microns) should be employed when clinically indicated and appropriate.
4. A unit of fresh blood, fresh frozen plasma or platelet concentration should be transfused for every 5-10 units of stored blood given within a 24-hour period.

24. I.V. Chemotherapy

I.V. Chemotherapy shall be initiated by a medical doctor's order for safe administration of I.V. antineoplastic agents in the treatment of cancer.

Recommendations of Practice

1. The administration of antineoplastic agents shall be conducted by the registered professional I.V. nurse who possesses knowledge and understanding of the basic principles of cancer therapy.
2. The administration of I.V. antineoplastic agents

- shall be in keeping with the recommendations stated in this document for general I.V. therapy.
3. An approved list of I.V. antineoplastic drugs including investigational agents and a recommendation for their preparation and administration shall be established in hospital policy.
 4. Determination of blood values shall be evaluated.
 5. A general history and assessment of clinical condition should be noted prior to treatment.
 6. Preservation of vascular access is mandatory for providing continued therapy.
 7. The choice of cannula shall be determined by the prescribed treatment, duration and condition of patient.
 8. Ascertaining placement of the I.V. device to avoid infiltration is mandatory.
 9. Drugs classified as vesicants shall be administered in conjunction with a continuous I.V. flow.
 10. Appropriate nursing intervention for extravasation of drugs, especially vesicants, shall be employed.
 11. Precautions in preparation and administration of antineoplastic agents shall be employed for protection of the patient and medical personnel.
 12. The rate of delivery of antineoplastic agents shall be precisely controlled and consideration should be given to the use of I.V. mechanical controlling devices.
 13. The use of .22 micron air eliminating filters should be employed unless contraindicated.
 14. Assessment for the use of Total Parenteral Nutrition should be employed.
 15. Assessment for the use of blood component therapy should be employed.
 16. Consent forms shall be mandatory for all I.V. investigational agents.
 17. The physical and psychological aspects of I.V. cancer therapy shall be clearly presented and discussed with the patient.
 18. Appropriate intervention for possible physical effects, including but not limited to alopecia, weight loss, nausea and vomiting should be employed.

Considerations

1. Consideration should be given to out patient therapy when appropriate.
2. Collaboration with other members of the health care team and local agencies shall be employed for meeting the psychosocial needs of the patient.

25. Documentation of I.V. Therapy

To protect the patient, nurse and health care facility and to retrieve statistical information by written documentation and verification of I.V. practices.

Recommendations of Practice

1. All I.V. procedures shall be documented, including but not limited to: initiation, daily monitoring, number of venipuncture attempts, new site changes, patient tolerance and termination of I.V. therapy.

2. Documentation of I.V. therapy shall be established by hospital policy and stated in the I.V. Policy and Procedure Manual.

26. Termination of I.V. Therapy

I.V. therapy is to be terminated on the order of a medical doctor or because of assessed patient complication.

Recommendations of Practice

1. The I.V. cannula shall be removed nearly flush with the skin, with adherence to aseptic technique and minimal trauma to the patient.
2. On removal, I.V. cannulas shall be visually inspected and assessed for length and tip smoothness to ascertain that the complete catheter has been removed.
3. Scissors should not be used around the I.V. cannula site in terminating I.V. therapy.
4. Apply firm pressure immediately after removal.
5. Termination of I.V. therapy should be documented on the patient's record.
6. A dry sterile dressing should be applied over the cannula site and removed in 24 hours.

- 27. Daily Monitoring of I.V. Therapy

To protect the patient by providing quality assurance with regular and standardized inspection of I.V. therapy. These measures shall reduce or prevent complications and related sepsis.

Recommendations of Practice

1. Peripheral I.V. cannulas should be changed every 48-72 hours.
2. I.V. administration sets should be changed every 24-48 hours and at the time a new container of I.V. solution is initiated.
3. The I.V. cannula site should be gently palpated and inspected for redness, swelling and any signs of sepsis.
4. The patient should be assessed for tolerance and any pain associated with this therapy.
5. The physician's order should be checked and the patient's record should be assessed to insure that the patient has received the prescribed therapy.
6. If the I.V. cannula requires change, a new I.V. access should be established before removal of the existing cannula.
7. If the dressing is changed at a 48-hour interval, the site should be cleaned with 70% isopropyl alcohol or iodophor solution and a topical ointment should be reapplied, if used. A sterile dressing should then be applied.
8. I.V. sites, through an intact dressing and flow rates should be checked at least every 8 hours.
9. Labeling of cannula, dressing, I.V. administration set and solutions should be in accordance with these Standards as stated under the designated Sections.
10. Daily monitoring and care shall be documented in accordance with practices as is stated these Standards.
11. Adherence to strict aseptic technique and

- avoidance of touch contamination shall be mandatory in daily monitoring and care.
12. Emphasis shall be placed on minimal manipulations of the I.V. system.

Consideration

Because manipulation and touch contamination are common causes for potential I.V. complications, consideration should be given to not interrupting the I.V. system for 48 hours. Although it has not yet been documented in the literature, it is the belief of this Association that the entire system (cannula, filter, dressing and I.V. administration set), except for I.V. solutions, should remain intact and changed at a 48-hour interval, provided no I.V. related complications are encountered before this time.

28. Quality Assurance

The patient receiving I.V. therapy shall be guaranteed an optimal level of I.V. care. A quality assurance program will maximize quality I.V. care and minimize possible I.V. complications and sepsis and insure proper intervention in a timely manner.

Recommendations of Practice

1. Quality assurance is integrated into all aspects of I.V. therapy including, but not limited to: cannula placement and care, I.V. solution preparation, filter application, I.V. administration set change and dressing change.
2. Quality assurance of I.V. therapy should be in compliance with the Recommendations of Practice in each section of the Standards.
3. All products and packaging of products related to this specialty shall be inspected prior to use for integrity, sterility (if applicable), malfunctions, expirations and any product damaged or questioned shall be unacceptable for use.
4. The registered professional I.V. nurse shall be accountable for implementing appropriate intervention for possible local and/or systemic I.V. complication. Early recognition of signs and symptoms of I.V. complications shall be the basis for appropriate intervention.
5. I.V. care should be documented and a means of retrieving this documented data should be employed.
6. Data should be reviewed periodically with a predetermined criteria to evaluate efficiency, quality, complications and interventions of I.V. care.
7. Professional, specially trained I.V. nursing teams decrease the risk of I.V. related complications and infections and insure an optimal level of I.V. care by providing quality assurance and patient protection.
8. Quality assurance programs of I.V. therapy shall be stated in the I.V. Policy and Procedure Manual.
9. Collaboration with and education of other hospital departments and members of the health care team are necessary to assure im-

plementation of reliable quality assurance I.V. program.

29. Pediatrics

To insure safe administration and delivery of I.V. therapy to children, infants, neonates and premature infants.

Recommendations of Practice

1. The registered professional I.V. nurse shall have specialized knowledge of I.V. solution and medication dosages for children, infants, neonates and premature infants.
2. I.V. therapy for the pediatric patient shall follow the Recommendations of Practice set forth in these Standards.
3. A volume control mechanism shall be employed to insure accurate safe delivery of I.V. solutions.
4. The pediatric patient shall be evaluated and assessed more frequently than the adult patient.
5. I.V. policies and procedures shall be specific and categorized with special consideration for each of the following: children, infants, neonates and premature infants.
6. Generally, no more than 500 ml of any I.V. solution should be hung on a pediatric patient.
7. Adequate restraint but maximum mobility is essential in delivering I.V. therapy to the pediatric patient.
8. Psychological approaches should be relative to the pediatric patient in delivering I.V. therapy.

30. Infection Control

To minimize I.V. related sepsis, infection control is integrated into many aspects of I.V. therapy, including, but not limited to: I.V. cannula, I.V. dressings, I.V. solutions, I.V. administration set change and the .22 micron air eliminating I.V. filters. Early recognition of the signs and symptoms of sepsis, as well as awareness that the patient may be a compromised host, will maximize the prevention of sepsis and insure appropriate intervention in a timely manner.

Recommendations of Practice

1. Infection control I.V. practices are implied by the outcome criteria in each section throughout these Standards in the Recommendations of Practice.
2. Suspected related I.V. infections shall be documented and brought to the attention of the attending physician and hospital infection control department.
3. Generally, there should be no interruptions in I.V. lines by add-on devices.
4. I.V. administration set junctions should be secured with a luerlock or junction clamping device.
5. Strict aseptic technique shall be employed when "piggy-back" medications or bolus medication injections are delivered through rubber ports on the I.V. administration set. The injection port

of I.V. administration sets shall be disinfected prior to entry.

6. Assessment of phlebitis should be evaluated as a sign and symptom that precedes a possible I.V. infection.
7. .22 micron air eliminating filters effectively screen all bacteria, reducing the patient's risk of I.V. related sepsis.
8. Frequent manipulation of the I.V. system should be avoided.

Considerations

1. Professional, specially trained I.V. nursing teams decrease I.V. related infections by providing control and technical expertise.
2. Collaboration with hospital infection control personnel is advocated.

31. Metabolic and General Assessment

To evaluate the patient's physical and mental status; assess the prescribed I.V. order; recognize and maximize the benefits of I.V. treatment; implement nursing intervention and minimize the risks and potential complications associated with this therapy.

Recommendations of Practice

1. The nursing process should be utilized in assessment.
2. Nursing history of the patient should include the collection of subjective and objective data.
3. The patient should be assessed for metabolic and any mental changes during therapy should be observed, noted and reported.
4. General physical assessment should include observation of the patient's condition and the condition of hair, skin, nails, weight and mouth.
5. Evaluation of laboratory values and fluid balance should be assessed on a daily basis.
6. Patient allergies shall be documented in the patient record and reported to the attending physician and other members of the health care team.
7. Daily intake and output shall be documented on patient's receiving I.V. therapy.
8. Prescribed infusion and medication should be maintained and delivered as prescribed.
9. Active physical exercise should be encouraged.
10. Passive physical exercise should be employed when necessitated by the patient's condition.
11. The patient's skin turgor should be observed.
12. Dependent/generalized edema should be recognized and reported.
13. The registered professional I.V. nurse should be cognizant of abnormal serum levels of glucose, electrolytes, vitamins and blood cell counts relative to I.V. management.
14. A microdrip I.V. administration set may be employed when delivering low volume infusions that are unassisted by mechanical gravity flow devices.
15. Electronic infusion controlling I.V. devices should be considered for maintaining constant rate of an I.V. infusion.

16. Vital signs should be monitored if warranted by the patient's treatment or condition.

17. A question-by a registered professional I.V. nurse on a prescribed order should be clarified by the medical doctor prior to implementing and administering therapy to the patient. Prescribed orders that are questioned should not be carried out.

18. Continuous patient assessments should be made at regular intervals.

32. Home I.V. Therapy Programs

Home I.V. therapy programs are designed for patients who are ready to leave the hospital but require I.V. therapy. Teaching the patient and significant others and follow-up I.V. care by the registered professional I.V. nurse will insure safe I.V. therapy for the home patient.

Recommendations of Practice

1. Written medical orders shall be ascertained for placing a patient on home I.V. therapy.
2. The patient and significant others shall be evaluated for competency and comprehension of the particular I.V. therapeutic regime prior to becoming a candidate for a home I.V. therapy program.
3. All possible complications of the patient's particular treatment shall be discussed and explained with the patient and significant others.
4. A consent form stating understanding and acceptance of possible consequences of I.V. complications shall be signed by the patient.
5. Home I.V. procedures shall be explained and demonstrated to the patient and significant others.
6. Patient and significant others shall return demonstrations of I.V. procedures and aseptic techniques. The competency and proficiency of the patient and significant others shall be evaluated and documented.
7. Patient and significant others shall feel secure with the home I.V. program prior to the patient being discharged.
8. Patient should be discharged with adequate supplies, medications and solutions.
9. Site inspection of the home by the registered professional I.V. nurse may be necessary to ascertain an area in the home for clean storage of supplies and an appropriate area for using sterile supplies.
10. I.V. catheter and I.V. dressings shall be changed as stated in the specific sections of these Standards under Recommendations of Practice.
11. The changing time interval is not known for central I.V. catheters that are considered long term catheters.
12. Peripheral I.V. catheters (excluding those catheters whose tips lie in central vessels) for patients on home I.V. therapy shall be changed every 48-72 hours.
13. I.V. administration sets should be changed at

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The National Intravenous Therapy Association's Intravenous Nursing Standards of Practice #10

Editors Note: The following are the "Home I.V. Therapy Nursing Standards of Practice" which have been revised, updated, and approved by the Standards Committee and the NITA Board of Directors. These Home I.V. Therapy Standards replace Section 32 in the existing "Standards of Practice" document. The following Home Standards are applicable to all aspects of I.V. therapy delivered outside the hospital. The entire NITA "Standards" document is in the process of a complete revision and will be expanded. Since the completed revision of the NITA "Standards" will be a lengthy process, and since home I.V. therapy is a growing area of practice, the Board of Directors felt it responsible to publish the "Home I.V. Therapy Nursing Standards of Practice" at this time.

Home I.V. Therapy

Home I.V. therapy standards are written for nurses delivering intravenous care outside of the hospital. The nurses practice shall comply with state laws and all standards set forth by this Association which are applicable to the delivery of home I.V. therapy. The primary goals of home I.V. therapy are to achieve the highest level of self care and quality of life for the patient by providing patient training and follow-up nursing care.

1. A physician's order shall be written regarding patient referral(s) for home I.V. therapy.
2. A medical order shall be written and signed by a physician to initiate and direct home I.V. therapy.
3. The written medical order(s) shall be reviewed and updated by the physician routinely.
4. Only physicians shall initiate a verbal medical order(s). Verbal medical order(s) shall be documented immediately by the registered nurse and brought to the physicians attention to be countersigned by the physician as soon as possible.
5. To insure that prescribed care is administered safely, the registered nurse shall have the knowledge and skills to interpret and implement the written medical order.
6. A consent form should be established and signed by the patient and/or legal guardian.
7. The patient shall be assessed for his/her ability to safely administer the prescribed home I.V. therapy.
8. If after the nursing assessment the patient is unable to achieve a determined level of self care, a significant other(s) shall be incorporated into the home I.V. therapy care plan and the physician shall be notified.
9. The significant other(s) shall be assessed for his/her ability to safely administer the prescribed home therapy treatment(s).
10. As the primary educator, the registered nurse shall address indication(s), benefits, methods and risks of therapy.
11. The teaching process for the patient and/or significant other(s) shall include written instructions, verbal explanations, demonstrations, evaluation and documentation of competency, proficiency in performing therapy-related procedures, self-monitoring, scope of physical activities, necessary intervention(s), safe discard of disposable equipment and specific actions to be taken in a possible emergency situation.
12. Therapy specific teaching instructions will be utilized during the educational process and shall be given to and remain with the patient and/or significant other(s).
13. All supplies and equipment necessary for therapy shall be available in the home before therapy is initiated.
14. Supply and equipment needs shall be continuously evaluated and met.
15. By the date of discharge, a registered nurse shall perform a home assessment and assist the patient and/or significant other(s) to determine an appropriate area for clean, safe storage of supplies/equipment, select a suitable area for procedures to be performed, and determine a safe discard of disposable equipment.
16. An ongoing assessment of patient and/or significant other(s) compliance in performing therapy related procedures shall be done at periodic intervals depending on patient condition and therapy.
17. All communications(s) with and/or site visit(s) to the patient shall be documented.
18. A summary of patient care shall be communicated to the physician at regular intervals.
19. Any pertinent observation that requires medical intervention shall be reported to the physician immediately.
20. The patient and/or significant other(s) shall be provided 24 hour access to appropriate health care professional(s).
21. It is recommended that the patient carry and/or wear appropriate identification indicative of therapy.
22. Psycho-social concerns of home I.V. therapy should be evaluated.